RBB
120

15459

1952.

NEW SOUTH WALES.

REPORT

OF THE

DIRECTOR-GENERAL OF PUBLIC HEALTH, NEW SOUTH WALES

FOR THE

YEAR 1940

THE ROYAL SANITARY INSTITUTE LIBRARY

WELLCOME INSTITUTE LIBRARY

Wholly set up and printed in Australia, by
A. H. PETTIFER, GOVERNMENT PRINTER, SYDNEY, NEW SOUTH WALES.

*97813—1

RBB|120

DEPARTMENT OF PUBLIC HEALTH, NEW SOUTH WALES

Members of the State Board of Health, 1940:—

Dr. E. S. Morris	President.	
Dr. W. G. Armstrong	Member.	
Dr. R. Dick	Member.	
Dr. C. Purser	Member.	
Hon. F. E. Wall	Member.	
S. S. Crick, Esq.	Member.	
Mrs. E. J. Maincke	Member.	(Died 11th September, 1940.)
R. J. Hawkes, Esq.	Member.	
B. G. Littler, Esq.	Member.	

Administrative Staff.

Director-General of Public Health and Commissioner for Venereal Diseases:
E. Sydney Morris, M.D., Ch.M., D.P.H., F.R.A.C.P., F.R. San. Inst.

Senior Medical Officer of Health and Director, Tuberculosis Division:
H. G. Wallace, M.B., B.S., D.P.H.

Metropolitan Medical Officer of Health:
J. G. Drew, M.B., B.Ch., M.R.C.S., L.R.C.P., D.P.H., D.T.M., D.T.H., F.R. San. Inst.

Assistant Medical Officer of Health:
B. R. Overend, M.B., Ch.M., D.P.H., D.T.M., D.T.H.

Secretary:
J. V. Boyle.

Divisions and Branches.

The following Divisions and Branches are controlled by the Director-General of Public Health: Maternal and Baby Welfare; Tuberculosis; Social Hygiene; Industrial Hygiene; Government Medical Officers for Sydney; Medical Officers of Health, Metropolitan, Newcastle and Broken Hill Districts; Microbiological Laboratories, Sydney and Broken Hill; Government Analyst; Health Education; Pure Food; Sanitation, etc.

The following hospitals are under the control of the Director-General of Public Health: Newington State Hospital and Home; Liverpool State Hospital and Home; Lidcombe State Hospital and Home; Waterfall Sanatorium; Randwick Auxiliary Hospital; Strickland Convalescent Hospital; David Berry Hospital and the Lazaret.

Legislative Enactments.

The following Acts for promotion of the public health have been placed under the charge of the Minister for Health, and under his direction are controlled by the Director-General of Public Health and his staff: Public Health Acts, 1902–1937; Noxious Trades Act, 1902; Cattle Slaughtering and Diseased Animals and Meat Acts, 1902–1932; Wine Adulteration Act, 1902; David Berry Hospital Act, 1906; Private Hospitals Act, 1908; Pure Food Act, 1908; Food Preservation by Sulphur Dioxide Enabling Act, 1920; King George V and Queen Mary Maternal and Infant Welfare Foundation Act, 1937; Lady Edith Carpenter Land Vesting Act, 1937; and such portion of the Quarantine Act, 1897, as is not superseded by Commonwealth legislation.

The Venereal Diseases Act, 1918, is controlled by the Director-General of Public Health, who is the Commissioner appointed under the Act. The Nurses' Registration Act is administered by a Board of which the Chairman is the Director-General of Public Health, ex officio.

Burials in closed cemeteries and the exhumation of bodies for the purpose of re-interment are dealt with under Ministerial direction.

22501407091

CONTENTS

Page.

Letter of Presentation to the Hon. C. A. Kelly, M.L.A., Minister for Health ... 5

Vital Statistics, 1940: Extract from the Report of Government Statistician (Mr. S. R. Carver), on the Vital Statistics for 1940 ... 8

SECTION I.

A.—Communicable Diseases.

Return of Diseases notifiable under the Public Health Acts for the year ended 31st December, 1940 ... 10

Venereal Diseases Act, 1918: Report by the Director of the Division of Social Hygiene (Dr. J. Cooper Booth) ... 28

Infantile Paralysis: Report by Dr. Karen Helms... 32

B.—Public Health Administration.

Chemical Laboratory: Report of the Government Analyst (Mr. S. G. Walton) ... 33

Pure Food Act, 1908: Report of the Chief Inspector (Mr. C. V. Francis) ... 34

Report of the Chief Sanitary Inspector (Mr. G. A. Garrow) ... 35

Private Hospitals Act: Report by Dr. B. van Someren ... 36

Medico-Legal Section and Hospital Admission Depot: Report by the Government Medical Officer for Sydney (Dr. C. E. Percy) ... 36

Health Education, 1940 (Mr. A. G. White) ... 37

C.—Division of Maternal and Baby Welfare.

Report by Director (Dr. Grace J. Cuthbert) ... 38

D.—Tuberculosis Division.

Report of the Director (Dr. H. G. Wallace) ... 53

E.—Industrial Hygiene.

Report of the Medical Officer of Industrial Hygiene (Dr. Charles Badham) ... 57

SECTION II.

Medical Officers of Health.

Metropolitan Combined Sanitary District: Report of the Medical Officer of Health (Dr. J. Grahame Drew) ... 60

Hunter River Combined Sanitary District: Report of the Medical Officer of Health (Dr. J. R. Shannon) ... 61

Broken Hill Sanitary District: Report of the Medical Officer of Health (Dr. W. E. George) ... 62

SECTION III.

Hospitals and Institutions.

Report on Leprosy in New South Wales, 1940 ... 63

State Sanatorium for Consumptives, Waterfall; Strickland Convalescent Hospital for Men and Women, "Carrara," Vaucluse; State Hospital and Home for Men, Lidcombe; State Hospital and Home for Men, Liverpool; State Hospital and Home for Women, Newington; Randwick Auxiliary Hospital; David Berry Hospital ... 63

SECTION IV.

Microbiological Laboratory.

Report of the Principal Microbiologist (Dr. E. L. Morgan) ... 67

Statement of Routine Examinations ... 68

Examination of Rats for Plague, 1940 ... 69

LIST OF GRAPHS.

1. Annual Death Rate... 11
2. Cancer, Tuberculosis and Heart Disease ... 13
3. Pneumonia ... 16
4. Influenza ... 17
5. Measles ... 20
6. Whooping Cough ... 21
7. Typhoid Fever ... 24
8. Scarlet Fever ... 25
9. Diphtheria ... 27
10. Infantile Paralysis ... 32
11. Puerperal Condition ... 40
12. Maternal Mortality ... 41
13. Infantile Mortality ... 43
14. Diarrhoea and Enteritis ... 44
15. Diarrhoea, Enteritis and Respiratory Diseases... 47
16. Tuberculosis ... 54

Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

WELLCOME INSTITUTE

+
Ann Rep
WA28
.KA8
N53
1940

https://archive.org/details/b31485315

ANNUAL REPORT, 1940

REPORT OF THE DIRECTOR-GENERAL OF PUBLIC HEALTH TO THE HONORABLE
THE MINISTER FOR HEALTH (THE HON. C. A. KELLY, M.L.A.).

Sir,

I have the honour to present my report on the work of this office for the year ended 31st December, 1940.

The various sections of the report have been abbreviated compared with previous years, but, as far as possible, essential information has been furnished.

Vital Statistics.

An extract from the report of the Government Statistician on the Vital Statistics for the year 1940 is appended.

The population of New South Wales at 31st December, 1940, was 2,789,123 and the mean population for the year was 2,773,341. Live births numbered 49,382, equivalent to 17.81 per 1,000 of population. Still births numbered 1,342. Deaths from all causes totalled 26,143, a rate of 9.43 per 1,000 of population—this rate is the same as the average of the previous five years. There were 1,927 deaths under one year of age, a rate of 39.02 per 1,000 live births.

Infectious Diseases.

Typhoid Fever.—Sixty-seven cases with nine deaths were notified.

Scarlet Fever.—There were 3,026 cases and fifteen deaths in 1940, a decrease of 164 cases, but with four deaths more than in 1939.

Diphtheria.—One thousand eight hundred and thirty-four cases were notified in 1940, or 2,269 less than in 1939.

Acute Anterior Poliomyelitis (Infantile Paralysis).—During 1940, five cases of anterior poliomyelitis were notified in the metropolitan area of Sydney.

In the remainder of the State, six cases are known to have occurred.

Tuberculosis Division.

During the year ended 31st December, 1940, 1,907 cases of pulmonary tuberculosis were notified, an increase of 220 on the previous year's figure. There was a noticeable increase in the number of early cases notified.

Deaths from pulmonary tuberculosis during 1940 numbered 892, giving a death rate of 32.2 per 100,000 of population, the lowest death rate ever recorded in New South Wales. The deaths from non-pulmonary tuberculosis during 1940 fell to forty-four, a death rate of 1.6 per 100,000; this again was the lowest death rate ever recorded in the State.

The acute shortage of accommodation in sanatoria remains a difficult problem. Steps have been taken to increase the number of beds at the Waterfall Sanatorium and the Randwick Auxiliary Hospital and to open a special ward at Lidcombe State Hospital.

Continued progress has been made in the campaign against tuberculosis during the year, despite difficulties. The deficiencies of our existing organizations have been revealed; and the lines along which developments for future progress may be attained have been outlined by the Director of the Division in his report.

Division of Social Hygiene.

On account of the change in social conditions due to war activities, an increase was expected in the number of notifications of venereal disease infection, but in fact there has been a decrease of 540 notifications received during the year. It is difficult to account for the decline, but it may be partly due to an increasing number of medical practitioners failing to notify infections and also in part to an increase in the number of persons treating themselves with sulphanilamide obtained irregularly.

There has been a decline of 4.8 per cent. in the amount of acute syphilis as compared with last year, the percentage being 29.4 of the total notified.

The prophylactic facilities at the Divisional Clinic were extended in May, 1940, to cover all hours, except between 2 and 3 a.m. daily, and 5,229 treatments were given during the year as compared with 2,680 the previous year.

There is co-operation between the defence services in New South Wales and the Health Department in matters concerning the control of venereal disease and representatives meet each month to discuss matters of common interest.

Clinics.—Attendances at clinics for males totalled 113,850 compared with 144,017 in 1939. At the clinics for females the attendances were 25,896 compared with 28,571 in 1939.

Health Department Clinic.—This clinic showed a decrease of 163 in the total of new patients and former patients who returned during the year as compared with the previous year and closed with a carry-over of 1,558 patients.

Consultative Council on Infantile Paralysis.

The Consultative Council on Infantile Paralysis has continued its work of investigation and treating patients reported to have been paralysed as a result of an infection with the virus of acute anterior poliomyelitis. During the year there were eleven notifications of poliomyelitis in New South Wales, five from the metropolitan area and six from rural districts.

An attempt has been made to give vocational guidance and arrange vocational training for paralysed persons over the age of fourteen years. The facilities available, however, are at present inadequate, but it is hoped that they will be increased in the near future.

Bureau of Microbiology.

During 1940, 86,754 general laboratory examinations were carried out, and in addition, 3,078 examinations of rats for plague. The number of serological examinations during the year was a slight decrease on the previous year's figures, viz., 21,464 Wassermann tests and 20,721 Kahn tests. Forty-seven complement deviation tests for hydatid were carried out as against thirty-eight in 1939. The number of milk samples submitted by the Milk Board for determination of the bacterial content was 777. The number of samples submitted for examination for tubercle bacilli and B. abortus was 724; of these one was positive for tubercle bacilli and eighty-six for B. abortus. The number of medico-legal examinations was 1,600.

The overcrowded condition of the laboratory accommodation is acute and until further space is available it is not possible to extend the scope of the work.

Division of Industrial Hygiene.

At the request of the Federal Director-General of Health, the services of the Medical Officer of Industrial Hygiene, Dr. Charles Badham, were made available as a member of an advisory committee set up by the Commonwealth Government to investigate the health and welfare of munition workers and of the hygiene of munition establishments. In addition to attending committee meetings, Dr. Badham has inspected munition annexes and training schools for munition workers, submitting reports dealing with working conditions and hygiene.

Investigation of dust disease and of pneumonoconiosis in connection with the special Pneumonoconiosis Board and the Workers' Compensation Commission has continued.

The following further investigations were undertaken during the year:—

1. Ventilation and dust sampling of coal mines.
2. Dust sampling in railway tunnels under construction.
3. The dust hazard at a factory manufacturing asbestos rope.
4. The dust hazard at two iron foundries and one ore milling plant.
5. The dust exposure of men engaged dressing carborundum and emery wheels.
6. The possible dust hazard during the manufacture of steel wool.
7. The working conditions in the various departments of a pipe works.

Lead Poisoning.—One hundred and sixty-seven persons suspected of having lead poisoning were examined of whom forty-seven were diagnosed as having lead poisoning with disability. The two industries which furnished the great majority of cases were painting and the manufacture of accumulator batteries. In addition, 2,597 slides of blood smears were examined and reported upon.

Ventilation.—Investigations have been made of a large number of city, suburban and country theatres and public halls, and reports submitted thereon. The present regulations covering ventilation of theatres and public halls in New South

Wales have been re-drafted by a committee of which an officer of this department is a member, but these regulations have not yet been gazetted.

At the request of the Comptroller-General of Prisons, an investigation was made of the ventilation of the cells at two prisons and reports furnished thereon.

Maternal and Infant Welfare Division.

The Director reports that continued progress during the year is shown in all the services of the Division.

Owing to the rapid increase in the number of attendances at the pre-natal clinics, bi-monthly visits at the more distant clinics became necessary.

Arrangements have now been made whereby additional assistance by an obstetrician was obtained, enabling the Director to attend all day clinics at least twice per month. This increased medical supervision has proved of great benefit, obviating the necessity of patients waiting long hours at the out-patients' department of the obstetric hospitals. Regular supervision of expectant mothers, which is so necessary in the prevention of maternal deaths, has thus been made more readily obtainable.

The latest edition of the Department's book, "Healthy Motherhood," was in great demand and was distributed before the end of the year. There is a constant and increasing call for this book, indicating that the medical profession and the public generally appreciate the practical advice contained therein.

Supervision Over Food and Drugs.

The number of samples examined in the chemical laboratory amounted to 34,761, an increase of 789 samples compared with the previous year. The administrations of the Pure Food Act necessitated the examination of 31,834 samples, while 2,927 were examined for the Public Services of the State. Arrangements have been made for the Microbiological Branch of this department in the examination of raw milk samples to determine the presence of coliform bacteria. This examination will be carried out simultaneously with the reductase tests to be made in the analytical laboratory in order to assess the cleanliness of the milk supply.

Of 22,555 samples of milk tested, 262 samples (1.6 per cent.) were found to be deficient in milk fats; 201 samples (0.89 per cent.) were found to contain added water; thirty-two samples (0.14 per cent.) to be deficient in milk fat and to contain added water, and four samples (0.01 per cent.) were found to contain dirt.

Baking Powder.—Considerable difficulty has been experienced by manufacturers of cream of tartar, baking powder and self-raising flour in procuring adequate supplies of cream of tartar. Acid phosphates are being used as a substitute, but it has been found that acids, calcium and phosphates are not suitable as such. Already the department has taken legal proceedings against the manufacturer for considerable deficiency in available carbon dioxide in the baking powder of this type.

Olive Oil.—Owing to the shortage of supplies of olive oil and the increase in price a tendency has arisen to adulterate this article with cheaper and more readily obtainable oils. Of fifty-seven samples examined, fifteen were found to be adulterated chiefly with the addition of maize or arachis oil, in some cases the substitution amounting to 100 per cent. Legal action has resulted in heavy penalties being imposed which should lead to a reduction of this type of offence.

Samples Submitted for the Public Services of the State numbered 2,927; 456 samples being submitted by the police authorities in connection with criminal investigations, twenty-four in connection with the administration of the Police Defence Amendment (Drugs Act) and five exhibits of animal viscera.

Samples Submitted by Municipal and Departmental Authorities comprised 679 samples of water and 223 samples of sewage, trade wastes, etc. Systematic investigation of Burrinjuck waters has been carried out during the year, approximately twelve samples being examined each month for the complete analysis of chemical constituents. This work is being done for the Water Conservation and Irrigation Commission in connection with the remedial measures being undertaken at the dam.

During the year attention was given to the trade wastes which are discharging into the water courses. With the rapid increase in the number of factories in the State it is evident that large investigations will have to be undertaken if effluents of satisfactory character only are to be discharged. The subject is one of considerable importance from the health point of view and there is urgent need at the moment for the establishment of a laboratory for the study and treatment of these wastes.

Industrial Hygiene Authorities submitted 404 samples relative to claims under the Workers' Compensation Act and the diagnosis of illness due to occupational causes.

Miscellaneous Authorities required the examination of sixty-nine samples including bedding material, plants, leather, lubricants, drugs, etc.

The staff at present is compelled to work under crude and difficult conditions which militate against efficiency. The provision of adequate accommodation is the most pressing need of the moment.

Administration of the Pure Food Act.

Of samples of milk collected by officers of the branch during the year, 214 failed to comply with the standard. Of 117 samples of ice-cream and ices all but one were in accordance with the standard. The seller of the defective sample was prosecuted. During the year 7,273 samples of meat were purchased for analysis for the presence of preservatives, etc. Prosecutions were instituted in connection with 216 of them.

It was found necessary to warn traders in respect of fifty-one samples of brown or wholemeal bread which contained too much white flour, and in addition to prosecute in six cases. Many samples of other foods and drugs were obtained for analysis or other examination. In all, 8,819 samples were taken.

Private Hospitals.

At the close of the year there were 532 licenced private hospitals in New South Wales, having a total of 5,326 beds, this being a reduction of five hospitals and an increase of seventy-two beds compared with the figures of the previous year. The improvement in the general standard of private hospitals has been maintained and in a great majority of cases licensees are co-operating willingly in carrying out improvements asked for by this department. An amendment of the Private Hospitals Act to give the Board of Health a greater measure of control over private hospitals, their equipment, etc., and including rest and convalescent homes, is urgently called for.

Hospital Admission Depot.

At this branch arrangements are made for the admission to metropolitan hospitals, State hospitals and homes and convalescent hospitals, a total of 15,565 cases being dealt with during the year. In addition, medical examinations are carried out for other departments, recruits for the police force and sick police are examined; the Reception House is visited daily by a medical officer, and vaccinations are carried out.

Medical-legal Section.—This very important section of investigational work for the Police Department is carried out by the Government Medical Officer in co-operation with the Government Analyst and the Principal Microbiologist. One hundred and one examinations were made in connection with these cases during the year.

Health Education.

The provision of additional funds for this important work has made it possible to extend the activities of this branch in several directions.

Broadcast Health Talks.—An innovation was made, so far as this country is concerned, by the recording of thirty short talks on health subjects, six impressions of each being made. The discs have been circulated to broadcasting stations throughout the State, and are being broadcast regularly. Spoken broadcasts have also been given from time to time as opportunity offers, particularly during Health Week. Broadcasts on Mothercraft are delivered by Health Centre sisters in the various country towns where there is a station.

Health Motion Picture Screenings.—The sound motion picture projector purchased in 1939 has been much used during the year.

Municipal and shire councils have co-operated in arranging meetings for the exhibition of health films, and attendances generally were very satisfactory. In all, about ninety-two screenings of films, accompanied by health talks, were given during the year, many of them being in country towns. It is estimated that at least 23,000 persons, including students and pupils of high schools, attended.

It is difficult to secure the right type of film for this purpose, but several have been purchased from the United States of America and have proved very satisfactory.

Press Articles.—The supply to about 300 country and suburban papers each week of short articles on various health topics has continued during the year.

Health Posters.—An attractive poster was produced for the department featuring the "Five Foundation Foods," and this has been in great demand. Another poster, also in colour, entitled "Things You Should Know," has been prepared and is being printed.

The Campaign Against Diphtheria.—Councils carrying out immunization campaigns have been supplied with posters, show cards, leaflets, etc. A film entitled "The Invisible Invader," is loaned to them for showing in local theatres.

Window Display Material.—Additional window display material, consisting of transparencies and coloured photographic enlargements, has been purchased and attracts much attention when displayed.

The Issue of Booklets.—Many booklets and leaflets have been issued during the year, several new ones being published, for which there is constant demand.

The eighth edition of the booklet, "Our Babies," was issued and distributed. The number of copies of this booklet issued free to mothers is now 420,000.

Metropolitan Combined Sanitary District.

The Metropolitan Medical Officer of Health in an abridged report draws attention to the very definite fall in the incidence of diphtheria in the metropolitan area, and considers that the influence of immunisation is now being felt. Altogether 1,004 cases of diphtheria were reported with thirty-three deaths, whereas the average for the years 1935-1937 was 2,700 cases with 100 deaths. Investigation into a number of cases of immunised children who were notified as suffering from diphtheria has revealed that a large percentage of these could be definitely classified as cases of streptococcal sore throat while carrying virulent diphtheria germs. During the year twenty-five cases of cerebro-spinal fever were notified with five deaths, an increase of thirteen on last year's figure. As several military camps are situated in or near the metropolitan area, every case was carefully investigated with special reference to contact with military personnel, and the information forwarded to the military authorities.

The system of garbage collection in the metropolitan area is still unsatisfactory. The installation of modern garbage collection vehicles may now prove difficult owing to the war, but much can be done to prevent the garbage, papers, etc., from the vehicles in present use being scattered on the roadway.

There have been complaints regarding the deposition of fatty substances on the beaches of Maroubra and Malabar. These substances evidently come from the sewer discharging at Long Bay. In Botany Bay the discharge of trade wastes into the waters is unsatisfactory and will require further investigation.

A very successful Health Week was held, with the motto "Fitness Wins."

Hunter River Combined Sanitary District.

The Medical Officer of Health in his report states that at 31st December, 1940, the estimated population was 227,090, but the mean population for 1940 was 225,700. Live births during the year numbered 3,820, equivalent to a rate of 16.93 per thousand. There were 148 deaths of infants under one year, giving an infant mortality rate of 38.74 per thousand live births. Deaths at all ages numbered 2,112, a rate of 9.36 per thousand of mean population.

Of the infectious diseases 166 cases (with eight deaths) of diphtheria were notified in 1940, compared with 336 cases in 1939. There were 266 cases of scarlet fever notified, compared with 407 notifications during the previous year. Nine cases of typhoid fever were notified, two cases of infantile paralysis, and four cases of cerebro-spinal meningitis.

Departmental officers co-operated with the Defence Department in the supervision of water supplies, sanitation and drainage of military and air force stations.

Housing problems aggravated by the rapid industrial expansion became more acute during the year, the necessity for a definite housing scheme becoming even more evident.

Sewerage installation was completed at Singleton, Maitland and adjoining areas. The sewerage of Kurri Kurri, Cardiff, Boolooroo, Toronto and Belmont was commenced, but the work will not be completed until 1941. Extension of sewerage to new subdivisions on the outskirts of Greater Newcastle was completed and survey made of proposed extensions.

Broken Hill and District.

The Medical Officer of Health reports that the population of the district at 31st December, 1940, is estimated at 28,804. The births during the year numbered 653 and the deaths 274. There were eight cases of diphtheria notified during the year and seven of scarlet fever. The total notifications of infectious diseases were only seventeen, a record low figure. The total number of examinations carried out in the laboratory was 7,397 compared with 10,497 during the previous twelve months. This decrease again is due to the low incidence of infectious disease.

E. SYDNEY MORRIS,
Director-General of Public Health.

Extract from the Report of the Government Statistician, Mr. S. R. Carver, on the Vital Statistics of New South Wales for the year 1940.

Population.—The population at the end of 1940 was 2,789,123, of whom 1,401,005 were males and 1,388,118 females, the proportion being 101 males to 100 females. During the year the population increased by 24,341, or .88 per cent. Of this increase the excess of births over deaths accounted for 23,239, and the excess of arrivals over departures for 1,102. The mean population was 2,773,341.

Live Births.—The total number of live births was 49,382, equivalent to 17.81 per 1,000 of population, which is 3 per cent. above the average of the previous five years. Of this number, 25,170 were males and 24,212 females, the proportion being 104 males to 100 females.

Dividing the State into the metropolis and remainder of the State, there were 19,942 births in the former, and 29,440 in the latter, corresponding to rates of 15.29 and 20.04 respectively.

Stillbirths.—The number of stillbirths registered was 1,342 (760 males and 582 females), which is 2.65 per cent. of all births, live and still, and equal to 0.48 per 1,000 of population.

Deaths.—The deaths during the year numbered 26,143, equivalent to a rate of 9.43 per 1,000 of the population. This rate is the same as the average of the previous five years.

The total includes 14,881 males and 11,262 females, equivalent to rates of 10.68 and 8.16 respectively per 1,000 of population. The rate in the metropolis was 10.49 per 1,000, and in the remainder of the State, 8.48.

Of the 26,143 people who died during the year, 2,509 were under 5 years of age, 10,940 were aged from 5 to 64, and 12,694 were 65 and over. The rates per 1,000 living in the main groups under and over 5 years were 11.04 and 9.28 respectively, as compared with 11.75 and 9.22 the average of the previous five years.

Infantile Mortality.—The number of children under 1 year of age who died was 1,927, equal to 39.02 per 1,000 live births. To this total the metropolis contributed 758 or 38.01 per 1,000 live births, and the remainder of the State, 1,169 or 39.71 per 1,000 live births. The rate for 1940 is 6 per cent. below the average of the previous five years. Of the deaths under 1 year of age, 1,043, or 54 per cent., occurred under 1 week, 1,263, or 66 per cent., under 1 month, and 1,453, or 75 per cent., under 3 months.

Causes of Death.—Of the deaths during the year, the most important causes were as shown in the following statement, which, for purposes of comparison, also gives the average number of deaths during the preceding five years, due allowance having been made for increase in population. The arrangement of the causes of death is based upon the 1938 revision of the International List of Causes of Death as adapted for use in New South Wales as from 1st January, 1940.

Causes of Death.	Number, 1940.	Average Annual Number, 1935-39. *	Increase (+ or Decrease (—) in 1940.
			per cent
Typhoid Fever (including Paratyphoid) ...	9	18	— 50
Cerebro-spinal (meningococcal) Meningitis	13	6	+ 118
Scarlet Fever	15	17	— 13
Whooping Cough	97	77	+ 25
Diphtheria	74	186	— 60
Erysipelas	12	19	— 37
Tetanus	26	23	+ 13
Tuberculosis of Respiratory System	892	978	— 9
Tuberculosis of Meninges and Central Nervous System	22	34	— 36
Other Tuberculosis Diseases	44	61	— 28
Dysentry	29	16	+ 83
Syphilis	179	203	— 12
Influenza—with respiratory complications specified	82	249	— 67
Influenza—without respiratory complications specified	49	93	— 47
Measles	22	44	— 50
Acute Poliomyelitis and Acute Polioencephalitis (notifiable and non-notifiable forms)	7	13	— 47
Acute Infectious Encephalitis (Lethargica or Epidemic) (notifiable and non-notifiable forms)	9	9	...
Other Infective and Parasitic Diseases......	114	99	+ 15
Cancer	3,082	2,983	+ 3
Diabetes Mellitus	517	465	+ 11
Other General Diseases	470	470	...
Vitamin-deficiency Diseases	3	2	+ 62
Diseases of the Blood	207	188	+ 10
Chronic Poisoning and Intoxication	36	27	+ 32
Encephalitis and Meningitis (non-epidemic)	124	106	+ 17
Cerebral Haemorrhage	1,623	706	+ 130
Cerebral Embolism, Thrombosis, and Softening and Hemiplegia	639	275	+ 133
Apoplexy and other Intracranial Effusions	41	24	+ 69
Infantile Convulsions	19	12	+ 59
Other Diseases of the Nervous System	319	361	— 12
Diseases of the Heart	7,386	6,613	+ 12
Arteriosclerosis and Other Diseases of Arteries	539	1,547	— 65
Other Diseases of the Circulatory System	58	41	+ 41
Bronchitis	222	274	— 19
Pneumonia..	1,376	1,786	— 23
Other Diseases of the Respiratory System	268	274	— 2
Diseases of the Stomach	163	141	+ 16
Diarrhoea and Enteritis (under 2 years) ...	185	157	+ 18
Diarrhoea and Enteritis (2 years and over)	135	106	+ 28
Appendicitis	189	252	— 25
Hernia, Intestinal Obstruction	195	214	— 9
Cirrhosis of the Liver	112	119	— 6
Peritonitis (without specified cause)	23	28	— 17
Other Diseases of the Digestive System......	337	376	— 10
Nephritis	1,388	1,557	— 11
Other Diseases of the Genito-urinary System	415	417	...
Criminal Abortion	34	48	— 28
Puerperal Septicaemia and Post-abortive Sepsis	50	60	— 16
Puerperal Thrombophlebitis, Embolism and Sudden Death (sepsis)	18	18	...
Other Puerperal Diseases	107	129	— 17
Congenital Malformations	275	271	+ 1
Congenital Debility	74	96	— 23
Premature Birth	598	646	— 7
Other Diseases Peculiar to First Year of Life	381	378	+ 1
Senility	863	770	+ 12
Suicide	309	325	— 5
Accident	1,423	1,496	— 5
Other Violence	49	44	+ 12
All other causes	196	201	— 2
Total	26,143	26,148	...

* Adjusted to the mean population of 1940, viz., 2,773,341.

Infective and Parasitic Diseases (Communicable Diseases).—The deaths from infective and parasitic diseases (which include tuberculosis) numbered 1,695, as compared with an adjusted average of 2,145 during the previous five years, being a decrease of 21 per cent. Deaths from cerebro-spinal (meningococcal) meningitis and whooping cough increased considerably in 1940 as compared with the previous five years, but typhoid fever, scarlet fever, diphtheria, influenza and measles decreased considerably.

Tuberculosis of the Respiratory System was the cause of 892 deaths in 1940, the rate 322 per million living, being 9 per cent. below the average rate of the previous five years. The deaths of males numbered 578 and of females 314, and the rates per million living were 415 and 228 respectively. The mortality rate from all other tuberculosis diseases was 31 per cent. below the average of the previous five years.

Cancer.—The deaths from cancer numbered 3,082, equal to a rate of 1,111 per million living, and 3 per cent. above the average rate of the preceding quinquennial period. The deaths of males numbered 1,567 and of females 1,515, the rates for each sex being 1,125 and 1,098 per million respectively. The crude death-date from this disease has been increasing steadily for a number of years, but the standardised rates (which adjust for the increasing proportion of aged people) show that within the last few years cancer mortality has commenced to decline.

Intra-cranial Lesions of Vascular Origin.—From the begining of 1940 all intra-cranial lesions, whether described as due to or associated with arteriosclerosis or arterial hypertension (or their synonyms) or not, are included under this heading. This prevents comparison with years immediately preceding. On the new basis in 1940, the deaths were subdivided as follows—cerebral haemorrhage 1,623, cerebral embolism and thrombosis 547, softening of the brain 32, hemiplegia and other paralysis 60, and apoplexy and other intra-cranial effusions 41.

Diseases of the Heart were the cause of 7,386 deaths, the rate being 2,663 per million. The rate for deaths from heart diseases in 1940 was 12 per cent. above the average rate of the preceding five years. Of the total deaths, 4,399 were of males and 2,987 females, the corresponding rates per million living of each sex being 3,157 and 2,164. It is difficult to arrive at the true increase in these deaths as distinct from the apparent increase disclosed by crude death rates over the last forty or fifty years. Even though the effects of the "ageing" of the population were removed by standardising the rates on a fixed age distribution of population, the true position would be obscured by the effects of the greater attention given to pathological diagnosis over the last thirty years.

Bronchitis and Pneumonia.—Bronchitis, with 222 deaths, equal to a rate of 80 per million living, showed a decrease of 19 per cent., and pneumonia, with 1,376 deaths, or 496 per million, a decrease of 23 per cent., as compared with the experience of the previous five years.

Of the deaths from bronchitis, 120 were of males and 102 of females, or 86 and 74 per million living respectively. Of the persons who died from pneumonia, 784 were males and 592 were females, and the rates were 563 and 429 per million living of each sex.

Nephritis.—During 1940 there were 1,803 deaths due to diseases of the genito-urinary system, of which 1,388 were caused by nephritis (acute and chronic). The rate for nephritis was 500 per million living; for males 558 per million, and for females 442 per million. In 1940 the rate was 11 per cent. below the average of the previous five years. The general tendency of the rate has been to increase.

Mortality of Infants.—The principal causes were prematurity 598, congenital malformations 232, injury at birth 220, other developmental diseases 235, pneumonia 216, diarrhoea and enteritis 140, infective and parasitic diseases 100 (including whooping cough 60, influenza 11, tuberculosis 5, syphilis 5, diphtheria 3 and measles 2), encephalitis and meningitis 27, convulsions 12 and bronchitis 11.

The following statement shows the deaths of children under 1 year of age per 1,000 live births, classified in the principal disease groups, during 1940 in comparison with the preceding five years:—

Causes of Death.	Males.		Females.		Total.	
	1940.	1935–39.	1940.	1935–39.	1940.	1935–39.
Tuberculosis	·04	·21	·17	·09	·10	·15
Syphilis	·12	·12	·08	·11	·10	·11
Other Infective or Parasitic Diseases	1·99	1·83	1·65	2·00	1·82	1·91
Meningitis	·75	·49	·33	·35	·55	·42
Convulsions	·40	·20	·08	·11	·24	·16
Bronchitis	·08	·38	·37	·26	·22	·32
Pneumonia	4·89	4·81	3·84	3·55	4·37	4·19
Diarrhoea and Enteritis	2·82	2·96	2·85	2·09	2·84	2·53
Malformations	5·04	5·23	4·34	4·05	4·70	4·66
Congenital Debility	1·71	2·20	1·28	1·80	1·50	2·01
Premature Birth	12·28	14·66	11·94	12·17	12·11	13·45
Injury at Birth	4.97	5·17	3·92	3·67	4·46	4·44
Other Diseases Peculiar to the First Year of Life	4·09	3·84	2·40	2·99	3·26	3·42
Other Causes	2·70	3·89	2·81	3·16	2·75	3·53
All Causes	41·88	45·99	36·06	36·40	39·02	41·30

SECTION I.

A.—COMMUNICABLE DISEASES.

NOTIFIABLE INFECTIOUS DISEASES RECORDED IN NEW SOUTH WALES DURING THE YEAR ENDED 31st DECEMBER, 1940.

Public Health Act, 1902-1937.

The Public Health Act, 1902, provides that the Governor may, by proclamation in the *Government Gazette*, declare that any disease therein named is an infectious disease.

	Notifiable from—	Cases and Deaths Notified.					
		1938.		1939.		1940.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever and paratyphoid	1st January, 1898	91	20	63	13	67	9
Scarlet fever	,,	2,599	12	3,190	11	3,026	15
Diphtheria or membranous croup	,,	3,935	156	4,103	192	1,834	74
Smallpox	,,	...	...	...	...	...	...
Bubonic plague	23rd January, 1900	...	...	...	...	...	...
Infantile paralysis (including any form of acute anterior poliomyelitis, polioencephalitis or poliomyeloencephalitis).	1st February, 1912. Definition re-proclaimed 14th August, 1931.	658	19	33	2	11	1
Epidemic cerebro-spinal fever (meningococcal meningitis).	11th October, 1915	22	7	22	6	41	13
Encephalitis lethargica	1st April, 1926	11	10	6	4	7	3
Cholera	12th August, 1927	...	...	...	...	...	...
Typhus fever	,,	7	...	...	...	5	...
Yellow Fever	,,	...	...	...	...	...	...
Puerperal infection	16th August, 1929	259	47	244	38	245	50*
Undulant fever	13th August, 1937	1	1	...	...	...	...
Leprosy	25th February, 1938	...	2	...	2	...	2
	Total	7,583	274	7,661	268	5,236	167
	Population at 31st Dec.	2,735,695		2,764,782		2,789,123	

* See text below.

PUBLIC HEALTH ACT, 1902.

A total of 5,236 cases of infectious disease was notified under the Public Health Act, 1902, during 1940 or 2,325 less cases than in 1939. The number of cases notified from the 158 municipal, 138 shire and 14 police districts; the deaths due to these infections; the age and sex of the patients; and the seasonal incidence of the various diseases are shown in appended Tables I-IV (pp. x). As indicated below, pulmonary tuberculosis is notifiable under the Public Health (Amendment) Act, 1915; and venereal diseases under the Venereal Diseases Act, 1918.

Typhoid Fever.—The 67 cases and 9 deaths notified in 1940 show the *lowest* incidence of this infection hitherto recorded. In 1939 there were 63 cases, and 13 deaths.

Scarlet Fever.—There were 3,026 notified cases and 15 deaths, a decrease of 164 cases as compared with 1939 when 3,190 cases and 11 deaths were recorded.

Diphtheria.—There were 1,834 notified cases and 74 deaths, in comparison with 4,103 cases and 192 deaths in 1939.

Infantile Paralysis.—Eleven cases and 1 death were notified. In 1939 there were 33 cases with 2 deaths.

Puerperal Infection.—245 cases were notified, or 2 more than in 1939. The recorded deaths from puerperal septicaemia and post-abortive sepsis in 1940 numbered 50, which does not include 33 deaths from sepsis classed as criminal abortion. Under the revised International List of Causes of Death which came into use in 1940, puerperal thrombophlebitis, embolism, and sudden death are included as subdivisions of the "infection" group, but to maintain comparability with previous years such deaths are omitted here and shown separately in the following pages. There were 18 deaths in this additional group.

Cerebro-Spinal Meningitis.—41 cases and 13 deaths were reported in 1940. In 1939 there were 22 cases and 6 deaths.

Encephalitis Lethargica.—7 cases and 3 deaths were notified, compared with 6 cases and 4 deaths in 1939.

Undulant Fever.—On 13th August, 1937, a proclamation was issued making undulant fever notifiable on and from that date.

Bubonic Plague.—No case of this disease has been reported since June, 1923. Rat-catchers are continuously employed in the vicinity of wharves and in the city area. Plague was not detected in the 3,078 rates examined in the microbiological laboratory.

Smallpox.—No case was reported during 1940.

Leprosy.—No case of leprosy was notified in 1940, but 2 patients under detention in the Lazaret died during the year. For the Report on Leprosy in New South Wales see page 63.

PUBLIC HEALTH (AMENDMENT) ACT, 1915.

Pulmonary Tuberculosis was made a notifiable disease under an amendment of the Public Health Act in 1915. In 1940, notified cases amounted to 1,907, an increase of 220 on the notifications received in 1939. There were 892 deaths, or a decrease of 30 compared with the deaths recorded in 1939. A survey by the Director of the Tuberculosis Division is on page 53.

VENEREAL DISEASES ACT, 1918.

Cases of venereal disease notified in 1940 numbered 5,311, a decrease of 540 cases on the number 5,851 received in 1939. The Report of the Director of the Division is on page 28.

Graph I

ANNUAL DEATH RATE

Per 1,000 of the Population in N.S.W.

1875-1940

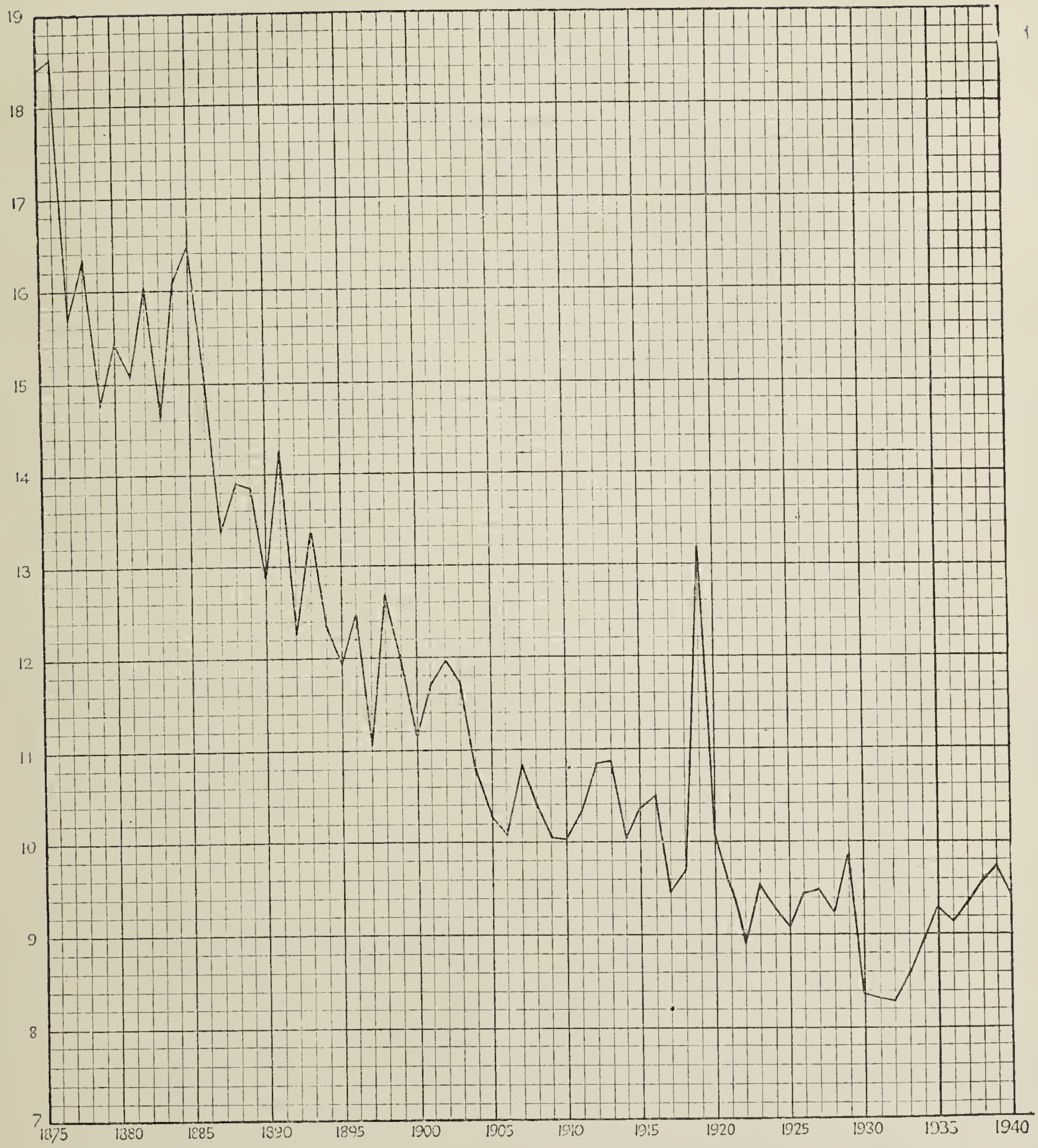


TABLE I.—Showing the number of notified cases of, and deaths from, the following diseases:—Cerebro-spinal Fever (Meningococcal Meningitis), Diphtheria and Membranous Croup, Encephalitis Lethargica, Infantile Paralysis (Acute anterior Poliomyelitis), Scarlet Fever, Typhoid Fever (including Paratyphoid), and Puerperal Infection in the METROPOLITAN COMBINED DISTRICTS for the year ended 31st December, 1940.

Municipality or Shire.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Puerperal Thrombo-phlebitis, Embolism and Sudden Death.	Pulmonary Tuber-culosis.
		C	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	D.	D.
METROPOLITAN MUNICIPALITIES.																	
Sydney, City of ...	89,020	...	...	112	...	78	3	1	...	4	1	...	...	19	2	...	67
Alexandria	8,470	1	...	4	...	11	...	...	...	1	...	...	...	3	...	...	2
Annandale	11,730	...	...	17	...	17	...	...	...	...	...	...	...	1	...	...	4
Ashfield..............	41,070	1	...	50	...	32	...	...	...	...	...	...	...	3	...	1	16
Auburn	20,680	...	...	39	...	12	...	...	...	...	...	...	...	1	...	...	2
Balmain	27,740	1	1	43	1	64	3	...	...	...	...	...	...	1	...	...	17
Bankstown	28,590	...	...	56	...	9	...	...	...	...	...	...	...	5	...	...	18
Bexley	22,480	...	...	32	...	6	...	...	...	...	...	...	...	...	...	...	6
Botany	8,890	...	...	10	...	6	...	1	...	1	...	...	...	...	...	...	2
Burwood	20,170	1	...	17	...	5	...	...	...	1	...	...	...	1	1	...	7
Canterbury	84,280	...	...	168	...	32	1	...	...	...	...	...	...	6	2	1	33
Concord	24,400	...	...	50	1	18	...	...	...	...	...	...	...	2	3	...	6
Darlington	2,780	1	...	3	...	5	...	...	...	...	...	...	...	1	...	...	2
Drummoyne	30,920	...	...	46	...	19	2	...	...	1	...	...	...	1	...	...	11
Dundas	6,700	...	...	4	...	2	...	...	...	...	...	...	...	...	...	...	3
Eastwood	3,320	...	...	2	...	...	...	...	...	...	...	...	...	1	...	...	...
Enfield	15,290	...	...	22	...	18	...	...	...	...	...	...	...	2	...	...	2
Ermington and Rydalmere	2,480	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Erskineville	6,280	...	...	3	...	13	...	...	...	1	...	...	...	4	...	...	3
Glebe	19,100	2	...	38	...	29	...	...	...	...	...	...	...	11	1	...	12
Granville	20,880	1	...	33	...	6	...	1	...	...	...	...	...	3	...	...	10
Holroyd (Pitt and Merrylands Wards)	9,270	1	...	33	...	12	...	...	...	1	...	...	...	1	...	...	4
Homebush	3,290	...	...	7	...	2	...	...	...	...	...	...	...	1	...	...	1
Hunter's Hill	9,730	1	...	2	...	2	...	...	...	...	...	...	...	...	...	...	1
Hurstville	25,620	...	...	42	...	14	1	...	...	...	...	...	...	3	...	...	5
Kogarah	33,640	...	...	45	...	18	...	...	...	...	...	...	...	5	...	...	8
Kuring-gai	32,470	1	...	30	...	4	...	...	...	...	...	1	1	1	...	...	8
Lane Cove	16,420	...	...	15	...	9	...	...	...	1	...	...	...	1	1	...	...
Leichhardt	30,170	...	...	36	...	51	3	...	...	1	1	...	...	5	...	...	21
Lidcombe	18,010	...	...	15	...	5	...	...	...	...	...	...	...	4	1	...	12
Manly	25,930	...	...	26	...	21	...	...	...	1	...	...	...	...	...	...	6
Marrickville	46,240	1	...	47	1	20	1	...	...	1	...	...	...	8	1	...	18
Mascot	15,650	...	...	13	...	14	...	...	...	...	...	...	...	2	...	...	10
Mosman	25,170	...	...	18	...	9	...	...	...	...	1	...	...	3	...	...	3
Newtown	24,650	...	...	31	...	31	1	...	...	...	...	...	...	9	1	...	15
North Sydney	52,230	1	...	35	...	11	...	...	...	...	...	...	...	5	2	...	22
Paddington	23,990	...	...	19	...	49	6	...	...	1	1	...	...	6	2	...	12
Parramatta	19,680	...	...	28	...	8	1	...	...	...	...	...	...	2	...	...	9
Petersham	27,550	...	...	25	...	23	...	...	...	...	...	...	...	1	...	...	10
Randwick	85,540	3	1	92	...	92	...	1	...	...	...	...	...	12	1	1	43
Redfern..............	17,550	1	...	24	...	34	2	...	...	...	...	...	...	7	1	...	19
Rockdale	42,340	...	...	54	...	29	...	...	...	2	1	...	...	1	...	1	12
Ryde	31,020	1	...	21	...	12	1	1	...	...	...	...	...	12	1	...	10
St. Peters	12,540	...	...	11	...	12	...	...	...	...	...	...	...	1	...	...	4
Strathfield	13,180	...	...	13	...	9	1	...	...	...	...	...	...	...	...	...	4
Vaucluse	8,230	1	...	8	...	2	...	...	...	...	...	...	...	...	...	...	1
Waterloo	11,420	...	...	19	...	8	...	...	...	1	...	...	...	2	...	...	4
Waverley	62,610	2	...	77	...	27	4	...	...	2	...	1	...	4	1	...	23
Willoughby	46,260	4	...	37	...	7	...	...	...	...	...	...	...	...	...	...	13
Woollahra............	38,940	1	...	40	...	8	...	...	...	...	...	...	...	2	...	...	11
EXTRA METROPOLITAN MUNICIPALITIES.																	
Cabramatta and Canley Vale ...	7,450	...	...	12	...	8	...	...	...	...	...	...	...	5	...	...	5
Fairfield	10,130	...	...	9	...	27	3	...	...	...	...	...	...	2	1	...	3
Holroyd (Guildford and Wentworth Wards)	9,070	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Ingleburn	2,110	...	...	7	...	15	...	...	...	2	...	...	...	...	...	...	1
Liverpool	6,990	...	...	10	...	8	...	...	...	1	...	...	...	3	1	...	5
EXTRA METROPOLITAN SHIRES AND PORT JACKSON.																	
Hornsby	25,200	...	...	30	...	7	...	...	...	2	...	...	...	3	...	...	25
Warringah	18,960	...	...	13	...	14	...	...	...	...	...	...	...	3	...	...	7
Harbour of Port Jackson............	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	1,384,520	26	2	1,694	3	1,004	33	5	...	25	5	2	1	179	23	4	582

Graph 2

CANCER, TUBERCULOSIS AND HEART DISEASE

Annual Death Rate per 100,000 of the Population, 1875-1940

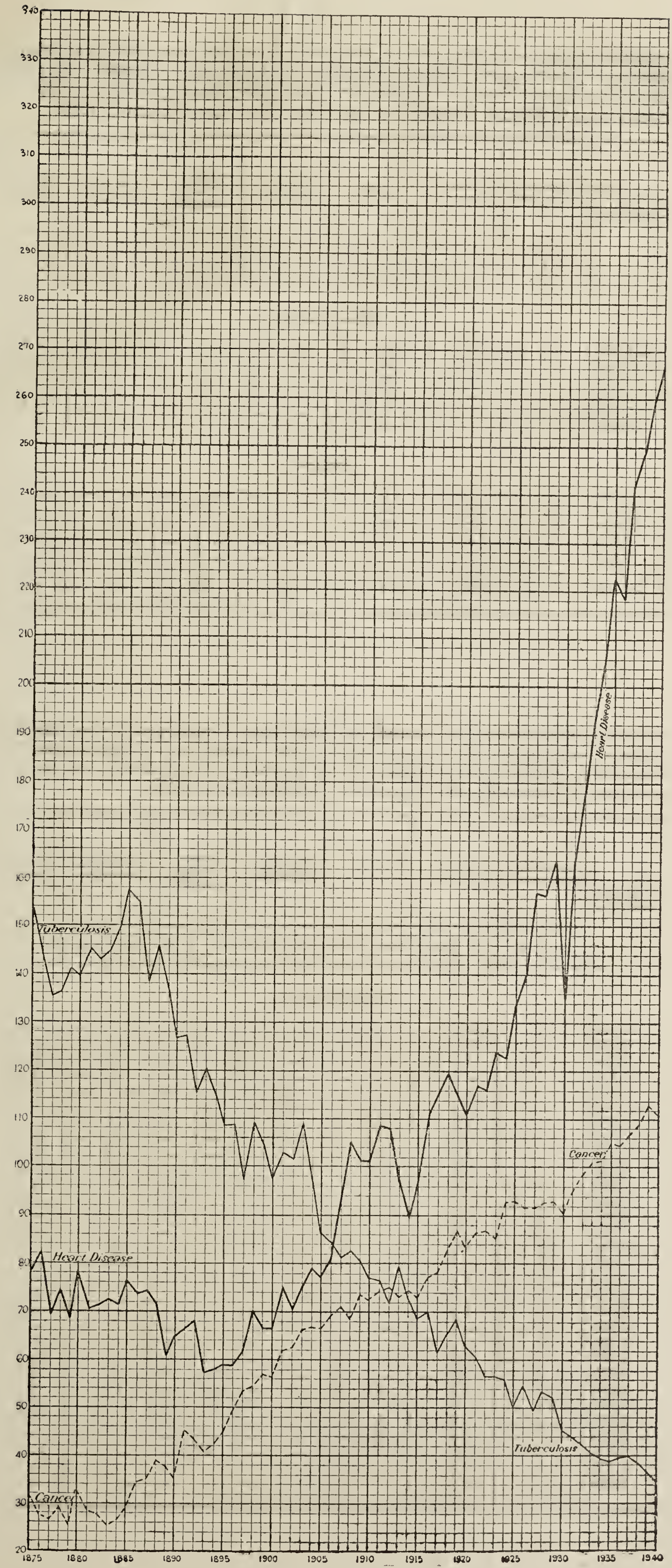


TABLE II.—Showing the number of notified cases of, and deaths from, Cerebro-spinal Fever (Meningococcal Meningitis), Diphtheria or Membranous Croup, Encephalitis Lethargica, Infantile Paralysis (Acute Anterior Poliomyelitis), Scarlet Fever, Typhoid Fever (including Paratyphoid), and Puerperal Infection in the HUNTER RIVER COMBINED DISTRICT for the year ended 31st December, 1940.

Municipality or Shire.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Puerperal Thrombo-phlebitis, Embolism and Sudden Death.	Pulmonary Tuber-culosis.
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	D.	D.
							MUNICIPALITIES.										
Greater Newcastle	118,080	6	...	130	1	61	1	1	...	...	...	...	...	4	2	2	34
Cessnock	14,500	...	...	15	...	17	...	...	...	...	...	...	...	...	2	...	5
Maitland, East	4,480	...	...	7	...	8	...	...	...	...	...	...	...	...	...	...	1
Maitland, West	8,290	...	1	14	1	10	1	...	...	2	...	...	...	...	1	...	2
Morpeth	1,040	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...
Singleton	3,830	...	...	1	...	2	...	...	...	...	...	...	...	1	...	...	...
							SHIRES.										
Bolwarra	3,670	...	...	3	...	5	...	...	...	...	...	...	...	...	...	1	...
Kearsley	27,850	2	...	48	...	22	3	1	...	2	...	...	...	...	...	...	5
Lake Macquarie	31,070	1	...	30	...	30	2	...	...	...	...	...	...	3	...	...	10
Port Stephens	5,350	...	...	9	...	3	...	...	...	...	...	...	...	...	...	...	1
Tarro	7,540	...	...	8	...	5	1	...	...	...	...	...	...	...	...	...	2
Total	225,700	9	1	266	2	166	8	2	...	4	...	...	...	8	5	3	60

TABLE III.—Showing the number of notified cases of, and deaths from, Cerebro-spinal Fever (Meningococcal Meningitis), Diphtheria or Membranous Croup, Encephalitis Lethargica, Infantile Paralysis (Acute Anterior Poliomyelitis), Scarlet Fever, Typhoid Fever (including Paratyphoid), and Puerperal Infection in the REMAINDER OF STATE for the year ended 31st December, 1940.

Municipality.	Estimated Mean Populanion.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Puerperal Thrombo-phlebitis, Embolism and Sudden Death.	Pulmonary Tuber-culosis.
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D	C.	D.	D.	D.
							MUNICIPALITIES.										
Albury	11,670	...	...	12	...	3	...	...	...	...	...	...	...	...	...	1	4
Armidale	7,130	...	...	12	1	4	...	1	...	...	...	...	...	...	...	...	1
Ballina	3,220	...	...	1	...	...	...	...	...	...	...	...	...	2	...	...	...
Balranald	1,330	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Barraba	1,490	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bathurst	11,130	1	1	25	...	2	...	...	...	...	...	...	...	...	...	...	3
Bega	2,610	...	...	3	...	1	1	...	...	...	...	...	...	...	...	...	1
Berry	2,830	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1
Bingara	1,470	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Blackheath	1,680	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Bombala	1,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bourke	1,990	...	...	7	...	6	...	...	...	...	...	...	...	...	...	...	1
Bowral	3,160	...	...	3	...	1	...	...	...	...	...	...	...	...	...	...	2
Brewarrina	890	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Broken Hill	28,090	3	...	7	...	7	...	...	...	...	...	...	...	...	...	1	5
Broughton Vale	260	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Burrowa	1,430	...	...	7	...	1	...	...	...	...	...	...	...	...	...	...	...
Camden	2,620	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Campbelltown	3,050	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Casino	6,220	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1
Castlereagh	1,230	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Cobar	1,820	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	1
Condobolin	2,850	...	...	2	...	...	1	...	...	...	...	...	...	1	...	...	1
Cooma	2,180	...	...	1	...	3	2	...	...	...	...	...	...	1	...	...	1
Coonamble	2,930	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Cootamundra	5,160	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2
Corowa	3,080	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...
Cowra	5,490	...	...	13	...	7	...	...	...	1	...	...	...	...	...	...	...
Deniliquin	3,450	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Dubbo	8,860	...	...	10	...	6	...	...	...	...	...	...	...	...	...	1	2

Remainder of State—Return showing the number of Cases, etc., from Country Municipalities—*continued.*

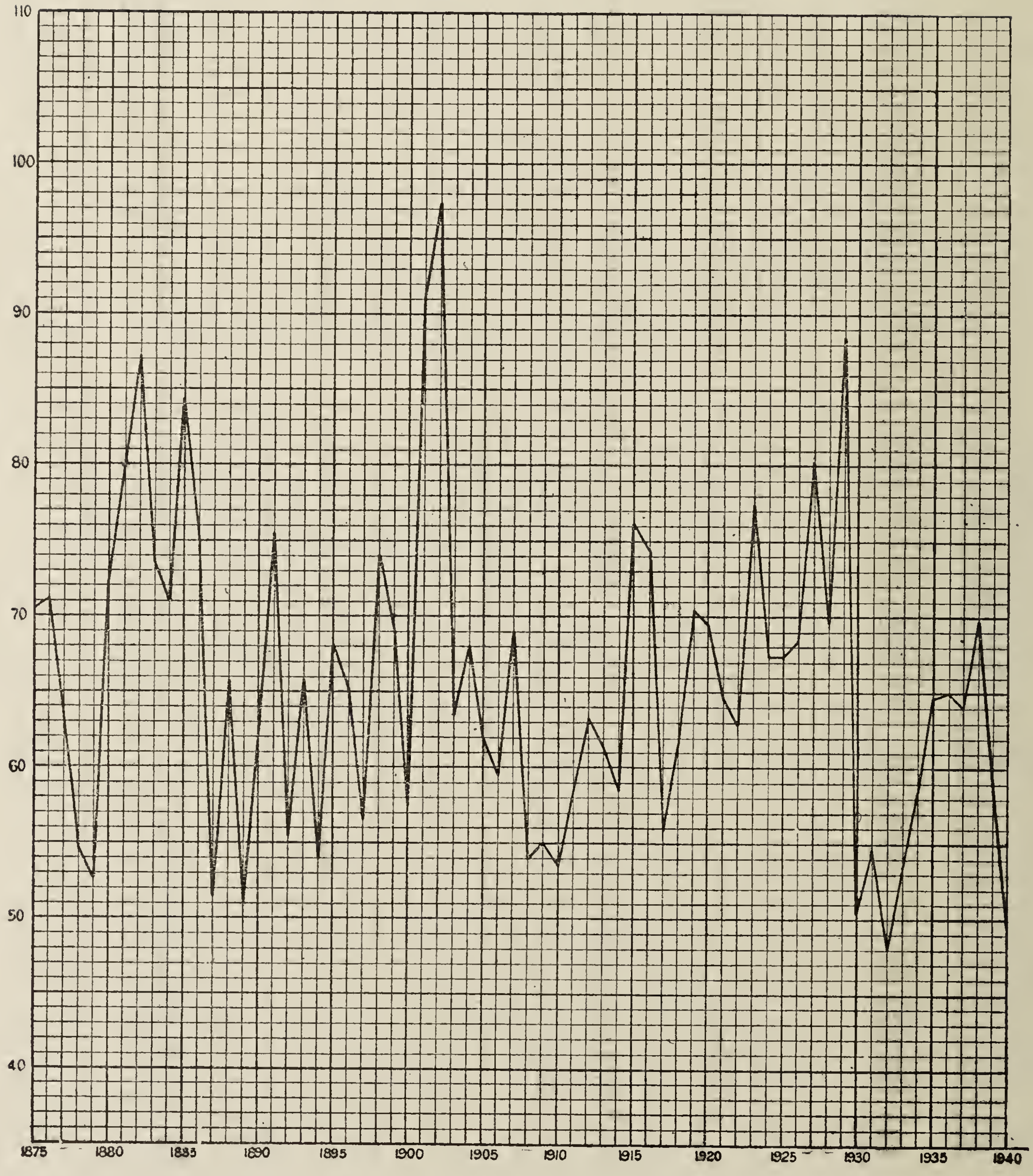
Municipality.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Puerperal Thrombo-phlebitis, Embolism and Sudden Death.	Pulmonary Tuberculosis.
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	D.	D.
MUNICIPALITIES—*continued.*																	
Dungog	2,210	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Forbes	5,800	...	...	23	...	1	...	...	...	...	...	...	...	...	...	...	1
Gerringong	900	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Glen Innes	5,510	...	...	2	...	5	...	...	...	...	...	...	...	1	...	...	...
Gosford	3,810	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Goulburn	15,400	...	...	127	...	3	...	...	...	...	...	...	...	...	2	...	3
Grafton	7,520	...	...	9	...	10	...	...	...	...	...	...	...	1	...	...	3
Grafton, South	2,940	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	1
Grenfell	2,580	...	...	3	...	1	1	...	...	...	...	...	...	...	...	...	...
Gulgong	1,740	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	1
Gunnedah	4,170	...	...	4	...	4	...	...	...	1	1	...	...	...	1	...	1
Hay	3,340	1	...	7	...	...	1	...	...	...	...	...	...	...	...	1	...
Hillston	1,180	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Illawarra North	9,350	...	...	1	...	4	...	...	...	...	...	...	...	...	...	1	4
Inverell	6,070	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	1
Jamberoo	1,130	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Junce	4,360	...	...	10	...	2	...	...	...	1	1	...	...	2	...	...	1
Katoomba	7,210	...	...	12	...	2	2	...	...	...	...	...	...	...	...	...	12
Kempsey	5,430	...	...	7	...	7	1	...	...	...	...	...	...	2	...	...	2
Kiama	2,500	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Lismore	13,300	...	...	12	...	20	...	...	...	...	...	...	...	1	...	...	1
Lithgow	16,080	...	...	17	...	2	...	...	...	...	...	...	...	...	...	...	4
Maclean	1,700	...	...	4	...	3	...	...	...	...	...	...	...	...	...	...	...
Manilla	1,980	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	1
Moama	780	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Molong	1,690	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Moree	4,890	...	1	4	...	8	...	...	...	...	...	...	...	...	...	...	1
Mudgee	4,180	...	...	7	...	10	1	1	...	...	...	...	...	3	...	...	3
Mullumbimby	1,500	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Murrumburrah	2,730	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Murrurundi	1,140	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Murwillumbah	4,610	...	...	1	...	5	1	...	...	...	...	...	...	1	...	...	1
Muswellbrook	3,470	...	...	2	...	3	...	...	...	...	...	...	...	...	...	...	...
Narrabri	3,410	...	...	...	...	2	...	...	...	...	...	...	...	1	...	...	1
Narrandera	4,380	...	...	1	...	4	...	...	...	...	...	...	...	1	...	...	2
Narromine	1,740	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowra	3,240	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2
Nyngan	1,680	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	1
Orange	10,410	3	...	20	...	26	...	...	...	...	...	1	...	...	1	...	2
Parkes	6,340	...	...	23	...	4	1	...	...	...	...	...	...	1	...	...	...
Peak Hill	1,300	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2
Penrith	4,140	...	...	3	...	1	...	...	...	...	...	...	...	...	...	1	2
Picton*	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Port Macquarie	2,080	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Queanbeyan	4,340	...	...	15	...	1	...	...	...	...	...	...	...	...	...	...	2
Quirindi	2,720	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...
Richmond	2,900	...	...	5	...	12	...	...	...	...	...	...	...	1	1	...	1
Scone	2,290	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Shellharbour	2,190	1	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Shoalhaven, South	840	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Mary's	3,180	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Tamworth	11,040	...	...	9	...	28	1	...	...	1	2	...	...	...	...	...	1
Tarce	5,170	...	...	...	...	1	...	...	...	...	...	...	...	1	1	...	2
Temora	4,340	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2
Tenterfield	2,760	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ulladulla	1,580	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Ulmarra	2,000	...	...	...	...	6	...	...	...	...	...	...	...	1	1	...	...
Uralla	1,150	...	...	5	...	1	...	...	...	...	...	...	...	...	...	...	1
Wagga Wagga	13,200	...	...	33	...	2	...	...	...	...	...	...	...	2	...	...	2
Walcha	1,560	...	...	2	...	3	...	...	...	...	...	...	...	...	...	...	...
Warren	1,720	...	...	...	...	16	1	...	...	...	...	...	...	2	...	...	...
Wellington	4,540	...	...	8	...	15	1	...	...	...	...	...	...	...	...	...	2
Wentworth	870	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wilcannia	680	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...
Windsor	3,500	...	...	6	...	3	...	...	...	...	...	...	...	...	...	...	1
Wingham	1,790	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wollongong	17,600	...	...	25	...	4	...	...	...	...	...	...	...	1	1	1	8
Yass	3,040	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	1
Young	4,360	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1	4
Total Municipalities	419,600	12	3	601	1	301	15	2	...	6	5	1	...	31	10	8	112

* Amalgamated with Wollondilly Shire from 1st May, 1940.

Graph 3

PNEUMONIA

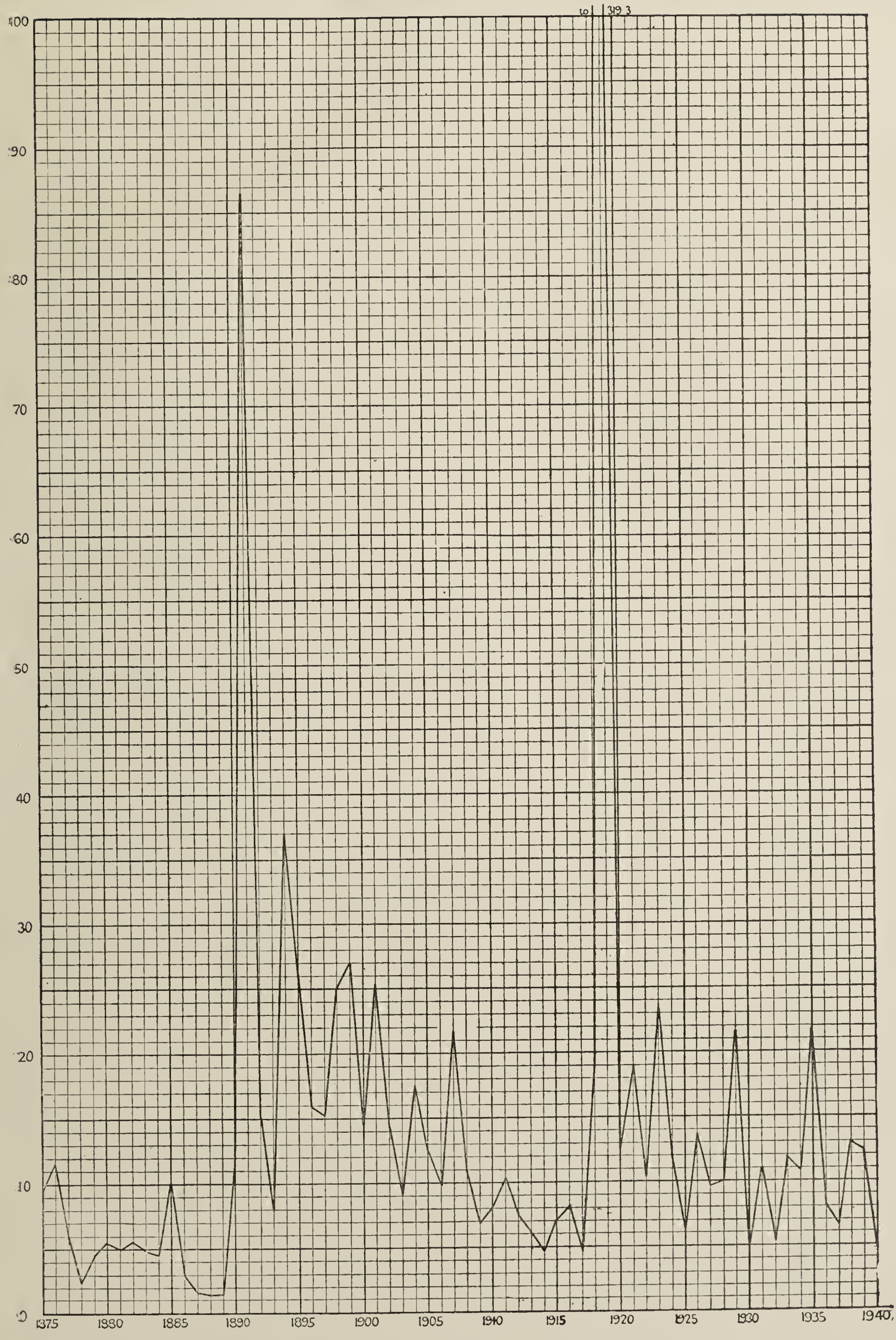
Annual Death Rate per 100,000 of Population in N.S.W., 1875–1940



Graph 4

INFLUENZA

Annual Death Rate per 100,000 of Population in N.S.W., 1875–1940



Remainder of State. — Return showing the number of cases, etc., from Country Shires.

Shires.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Puerperal Thrombo-phlebitis, Embolism and Sudden Death.	Pulmonary Tuber-culosis.
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	D.	D.
SHIRES.																	
Abercrombie	4,110	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2
Amaroo	2,920	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Apsley	2,970	...	...	1	...	4	...	...	...	...	...	...	...	...	...	...	...
Ashford	4,110	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bannockburn* ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Barraba	2,120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Baulkham Hills ...	8,880	1	...	9	...	8	1	...	...	...	...	...	...	...	...	...	2
Bellingen	6,330	...	...	4	...	2	...	...	...	...	...	...	...	...	...	...	1
Berrigan	5,020	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Bibbenluke	2,840	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blacktown	15,300	...	...	26	...	10	...	...	...	1	...	...	...	...	...	...	5
Bland	12,690	...	...	3	...	2	...	...	...	...	...	...	...	1	1	...	1
Blaxland	8,430	...	...	7	1	2	...	...	...	1	...	...	...	...	...	...	4
Blue Mountains ...	7,460	...	...	4	...	1	...	...	...	...	...	...	...	...	1	...	15
Bogan	1,940	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Boolooroo	3,640	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Boomi	3,280	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...
Boree..................	7,040	...	...	6	...	4	...	...	...	...	...	...	...	1	...	...	1
Bulli	16,300	...	...	9	...	4	...	...	...	...	...	...	...	...	...	...	7
Burrangong	6,050	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Byron	8,170	...	...	...	...	11	1	...	...	...	...	...	...	...	...	...	1
Cambewarra	1,260	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2
Canobolas	9,090	...	...	23	1	16	...	...	...	...	...	1	...	...	...	...	5
Carrathool	5,840	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Clyde	1,910	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Cobbora	5,440	...	...	3	...	4	...	...	...	...	...	...	...	...	...	...	...
Cockburn	5,150	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Colo	5,420	...	...	...	...	...	...	...	...	1	1	...	...	2	...	...	2
Conargo	1,380	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Coolah	2,260	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Coolamon	7,250	...	...	3	...	10	...	...	...	...	...	...	...	1	...	...	1
Coonabarabran ...	7,340	...	...	3	...	4	1	...	...	...	...	...	...	2	...	...	1
Copmanhurst	3,560	...	...	1	...	1	...	...	...	...	...	...	...	..	...	...	...
Coreen	3,470	...	...	3	...	3	...	...	...	...	...	...	...	..	...	...	...
Crookwell	6,620	...	...	6	...	5	1	...	...	...	...	...	...	...	...	...	1
Cudgegong	5,450	...	...	7	...	5	...	...	...	...	...	...	...	1	1	1	3
Culcairn	5,590	...	...	5	...	...	...	...	...	...	...	...	...	1	...	...	1
Demondrille	3,270	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dorrigo	11,540	...	...	...	...	11	3	...	...	...	...	...	...	...	...	1	1
Dumaresq	4,400	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...
Erina	14,670	...	...	5	...	3	...	...	...	...	...	...	...	1	...	...	7
Eurobodalla	5,470	...	...	...	...	10	1	...	...	1	2	...	...	...	...	...	2
Gilgandra	5,520	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gloucester	4,580	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...
Goobang	7,020	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1
Goodradigbee	3,580	...	...	4	...	...	...	...	...	...	...	...	...	1	...	...	...
Gostwyck	4,280	...	...	17	1	2	...	...	...	...	...	...	...	...	...	...	...
Gundagai	5,350	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Gundurimba.........	4,790	...	...	4	...	3	...	...	...	...	...	...	...	...	...	...	...
Gunning	3,250	...	...	21	1	1	...	...	...	...	...	...	...	...	...	...	...
Guyra	6,750	...	...	8	...	1	...	...	...	...	...	...	...	...	...	...	1
Gwydir	1,960	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Harwood	4,560	...	...	...	...	3	...	1	...	...	...	...	...	...	...	...	...
Hastings	10,040	14	3	1	...	2	1	...	...	...	...	...	...	...	...	...	3
Holbrook	2,730	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Hume	5,240	1	...	2	...	1	...	1	...	...	...	...	...	...	...	...	...
Illabo	2,890	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Illawarra, Central	12,950	...	...	27	...	6	...	...	...	...	...	1	...	...	...	...	5
Imlay	4,890	...	...	3	...	3	...	...	...	...	...	...	...	...	1	...	2
Jemalong	4,670	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Jerilderie	1,840	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jindalee	2,550	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Kyeamba	4,430	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyogle	12,740	...	...	3	...	12	1	...	...	...	...	...	...	1	...	...	1
Lachlan...............	8,450	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Liverpool Plains ...	5,560	...	...	2	...	4	...	...	...	...	...	...	...	...	...	...	...
Lockhart	5,680	...	...	7	1	2	...	...	...	...	...	...	...	...	...	...	1
Lyndhurst	7,400	...	...	3	...	2	...	...	...	...	...	...	1	...	...	...	...
Macintyre	5,120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Macleay	9,170	...	...	5	...	5	...	...	...	...	...	...	...	...	...	...	1
Macquarie............	4,650	...	...	3	1	14	3	...	...	...	...	...	...	...	...	...	...
Mandowa	2,030	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manning	14,790	...	...	1	...	5	...	...	...	...	...	...	...	...	...	...	2
Marthaguy	2,190	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Merriwa	3,270	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2
Mitchell...............	4,140	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Monaro	2,670	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mulwaree	7,270	...	...	20	...	3	1	...	...	...	...	...	...	...	...	...	3
Mumbulla	4,760	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Murray	3,250	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Murrumbidgee ...	800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Murrungal	2,650	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	1
Muswellbrook	4,230	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nambucca	8,040	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...

*** Bannockburn Shire and Macintyre Shire united to form Macintyre Shire 15th November, 1940.**

Remainder of State.—Return showing the number of cases, etc., from Country Shires—*continued.*

Shires.	Estimated Mean Population.	Typhoid and Paratyphoid.		Scarlet Fever.		Diphtheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Puerperal Thrombo-phlebitis, Embolism and Sudden Death.	Pulmonary Tuber-culosis.
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	D.	D.
						SHIRES—*continued.*											
Namoi	9,520	...	...	4	...	9	...	...	...	...	...	...	...	...	1	...	...
Narraburra	4,350	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Nattai	5,730	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	5
Nepean	3,740	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Nundle	1,870	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nymboida	2,970	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...
Oberon	3,130	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Orara	1,730	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Patrick Plains	6,620	...	...	1	...	2	...	...	...	...	...	1	...	...	...	...	...
Peel	6,790	...	...	2	...	3	...	...	...	1	...	...	...	...	...	...	...
Rylstone	6,020	...	...	8	...	4	1	...	...	...	...	...	...	...	...	...	1
Severn	6,380	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1
Snowy River	3,610	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stroud	6,650	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1
Sutherland	16,860	...	...	29	1	25	1	...	...	...	...	...	...	1	...	...	10
Talbragar	4,120	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...
Tallaganda	3,200	...	...	6	...	9	...	...	...	...	...	...	...	...	...	...	...
Tamarang	3,080	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...
Tenterfield	5,490	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Terania	7,920	...	...	3	...	19	...	...	...	...	...	...	...	1	1	...	1
Timbrebongie	4,510	...	...	7	...	...	...	...	...	...	...	...	...	...	1	...	1
Tintenbar	5,460	...	...	1	...	7	...	...	...	...	...	...	...	1	...	...	1
Tomki	4,120	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Tumbarumba	3,070	...	...	...	...	3	1	...	...	...	...	...	...	...	...	...	...
Tumut	8,060	...	...	23	1	2	...	...	...	...	...	...	...	...	...	...	1
Turon	4,560	...	...	6	...	...	1	...	...	...	...	...	...	...	...	...	1
Tweed	14,370	...	...	4	...	17	...	...	...	...	...	...	...	...	...	...	3
Upper Hunter	5,890	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Urana	3,200	...	...	7	...	3	...	...	...	...	...	...	...	...	...	...	...
Wade	10,100	...	...	4	...	6	...	...	...	...	...	...	...	...	...	...	2
Wakool	4,450	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Walgett	3,890	...	...	1	...	2	...	...	...	...	...	...	...	1	...	...	...
Wallarobba	5,190	...	...	4	...	1	...	...	...	...	...	...	...	...	...	...	...
Waradgery	1,240	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Warrah	1,820	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
Waugoola	6,050	...	...	4	...	6	...	...	...	...	...	...	...	...	...	...	...
Weddin	4,050	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...
Willimbong	8,740	...	...	3	...	1	...	...	...	...	...	...	...	2	...	...	4
Windouran	840	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wingadee	3,620	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	1
Wingecarribee	6,990	...	...	12	...	2	...	...	...	...	...	...	...	...	...	...	2
Wollondilly*	7,670	...	...	2	...	...	...	...	...	...	...	1	1	...	1	...	6
Woodburn	4,580	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	1
Woy Woy	2,980	...	...	1	...	2	...	...	...	...	...	...	...	1	...	...	...
Wyaldra	2,410	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Yallaroi	4,580	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yanko	5,360	...	...	4	...	9	...	...	...	...	...	...	...	2	...	...	1
Yarrowlumla	3,150	...	...	...	...	3	...	...	...	...	...	...	...	1	1	...	...
Total, Shires	719,440	20	3	462	9	360	18	2	1	6	3	4	2	25	11	3	135
						WESTERN DIVISION (UNINCORPORATED) POLICE DISTRICTS.†											
Balranald	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bourke	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brewarrina	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Broken Hill	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Cobar	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Hay	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hillston	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ivanhoe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Menindie	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mitchell	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nyngan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Walgett	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Wentworth	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Wilcannia	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Total, Unincorporated	19,140	...	...	3	...	3	...	...	...	...	...	...	...	2	...	...	
						MISCELLANEOUS.											
Lord Howe Island	164	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Migratory	4,777	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Outside the State—																	
Australian Cap. Territory	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
Queensland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Victoria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Australia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total, Miscellaneous	4,941	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
Total, N.S.W.	2,773,341	67	9	3,026	15	1,834	74	11	1	41	13	7	3	245	50	18	892

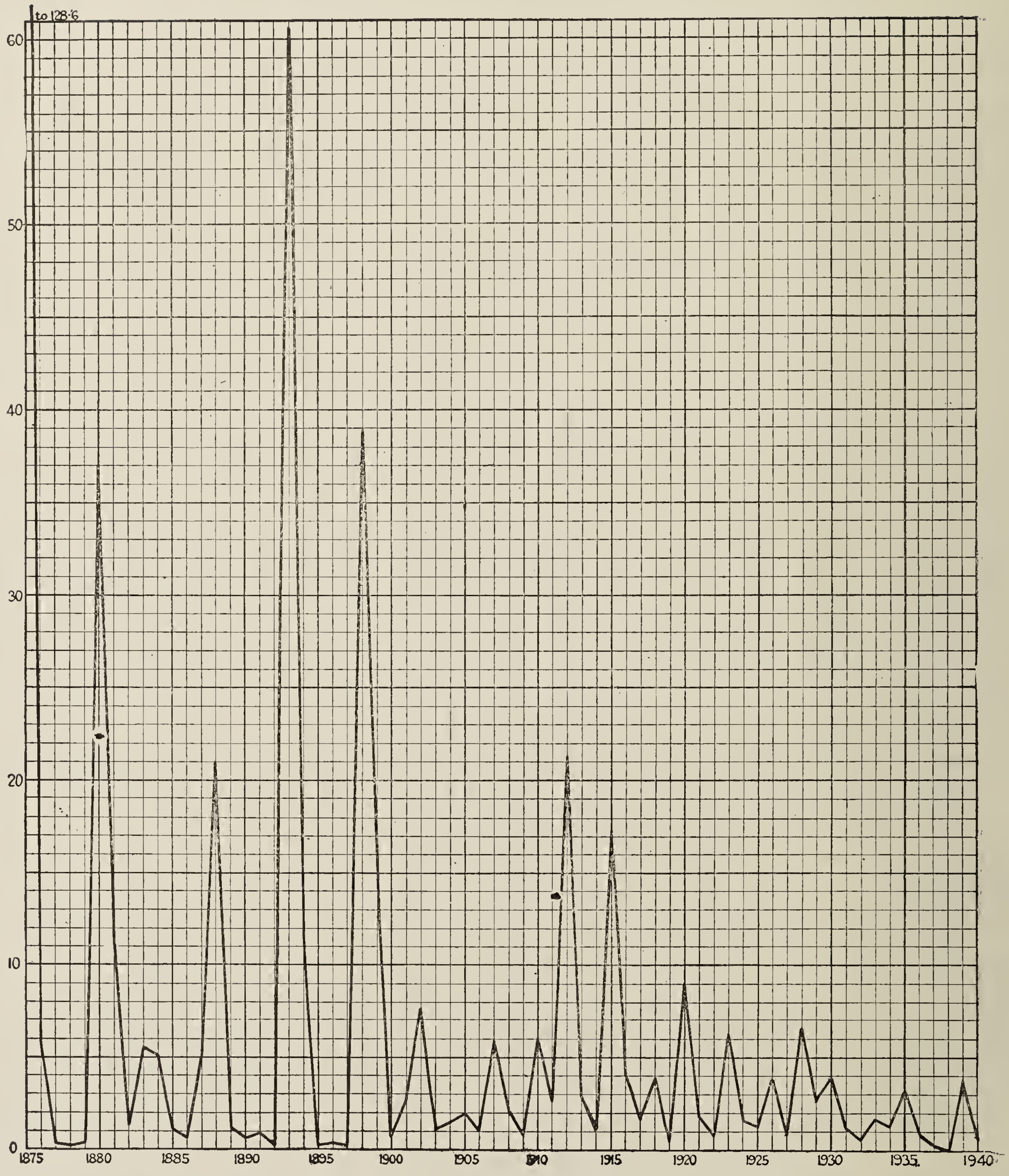
* Absorbed former Municipality of Picton as from 1st May, 1940.

† Population and Deaths available only for unincorporated area as a whole.

Graph 5

MEASLES

Annual Death Rate per 100,000 of Population in N.S.W., 1875–1940



Graph 6

WHOOPING COUGH

Annual Death Rate per 100,000 of the Population in N.S.W., 1875–1940

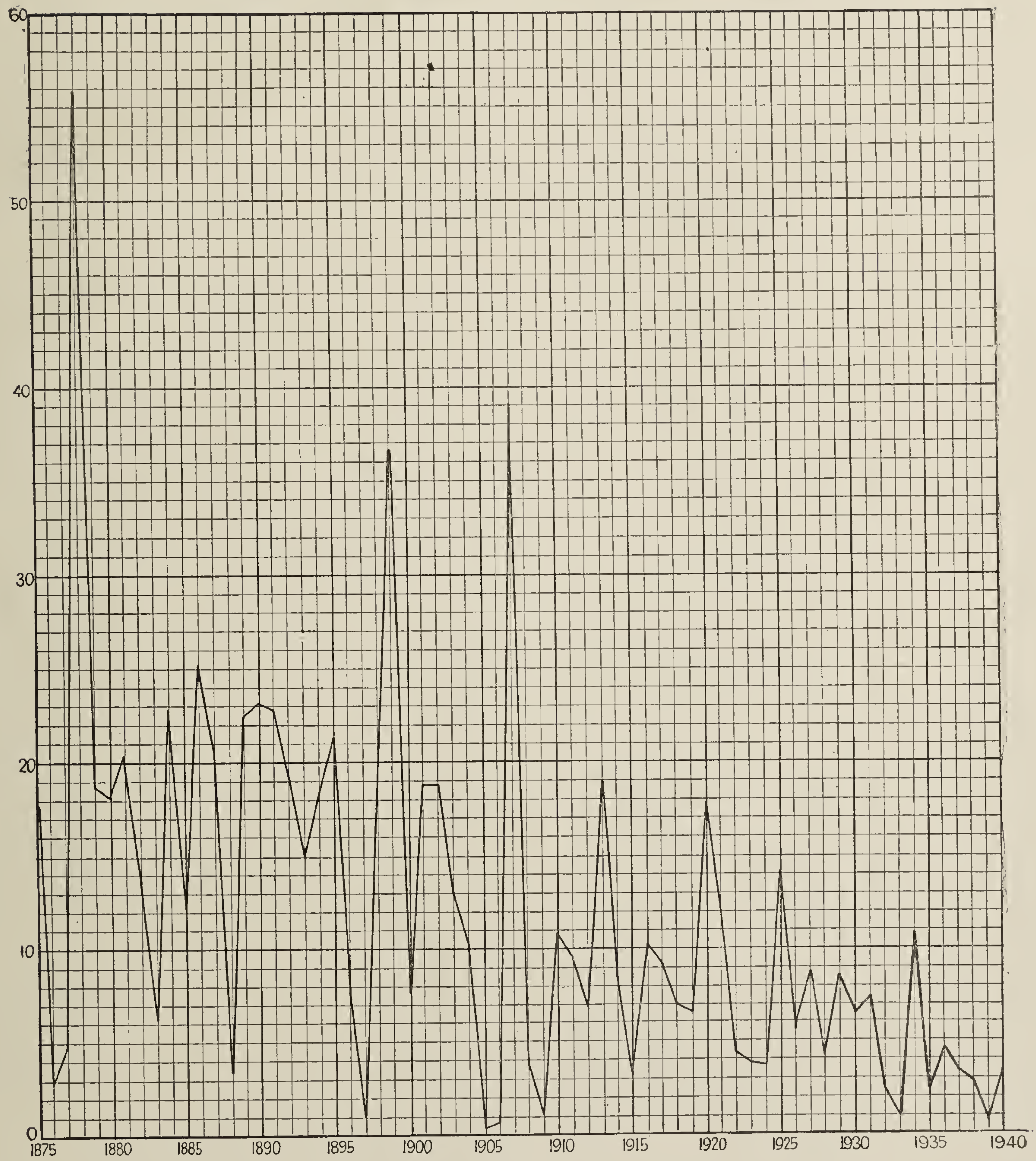


TABLE IV.—Table showing Age and Sex Incidence, and Mortality in the Metropolitan Combined District, Hunter River Combined District, Broken Hill District and Remainder of State from the notified cases of Cerebro-spinal Fever (Meningococcal Meningitis), Diphtheria and Membranous Croup, Infantile Paralysis (Acute Anterior Poliomyelitis), Encephalitis Lethargica, Scarlet Fever, Typhoid Fever (including Paratyphoid) and Puerperal Infection, for the year ended 31st December, 1940.

Age Period.	Typhoid and Paratyphoid.						Scarlet Fever.						Diphtheria.						Infantile Paralysis.						Encephalitis, Lethargica.						Cerebro-spinal Meningitis.						Puerperal Infection.		Puerperal Thrombo-phlebitis, Embolism and Sudden Death.	Pulmonary Tuberculosis.		
	Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Incidence.			Mortality.			Inci-dence.	Mor-tality.		Deaths.		
	Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.			Notified Deaths.			Notified Cases.	Notified Deaths.	Deaths.			
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	F.	F.	F.	M.	F.	Total
																			METROPOLITAN COMBINED DISTRICT.																							
All ages	7	19	26	1	1	2	610	1,084	1,694	...	3	3	460	544	1004	18	15	33	4	1	5	...	...	...	2	...	2	1	...	1	13	12	25	3	2	5	179	23	4	387	195	582
Under 1 year	...	...	...	...	...	...	4	9	13	...	...	...	22	13	35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	5	...	1	1	...	...	...	...	...	...
1–4 years	...	...	...	...	...	...	154	177	331	...	1	1	205	155	360	10	5	15	1	...	1	...	...	...	...	...	...	...	...	...	3	2	5	...	...	...	...	...	...	3	...	3
5–14 ,,	...	4	4	...	...	...	347	605	952	...	2	2	175	242	417	8	9	17	3	...	3	...	...	...	...	...	...	...	...	...	...	2	2	...	1	1	...	...	...	1	...	1
15–24 ,,	4	4	8	...	...	...	36	121	157	...	...	...	30	71	101	...	1	1	...	...	...	...	...	...	1	...	1	...	...	...	2	4	6	1	...	1	60	7	1	21	32	53
25–34 ,,	2	5	7	1	1	2	42	102	144	...	...	...	21	32	53	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	4	...	4	2	...	2	80	12	2	36	68	104
35–44 ,,	...	1	1	...	...	...	19	46	65	...	...	...	6	20	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	20	4	1	65	42	107
45–54 ,,	1	5	6	...	...	...	7	18	25	...	...	...	1	7	8	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	2	...	...	115	21	136
55–64 ,,	...	...	...	...	...	...	1	4	5	...	...	...	...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	87	20	107
65 and over	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	59	12	71
Not stated	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	...	...	...	...	...
																			HUNTER RIVER COMBINED DISTRICT.																							
All ages	7	2	9	...	1	1	103	163	266	1	1	2	87	79	166	3	5	8	...	2	2	...	...	...	...	...	...	...	...	...	2	2	4	...	...	...	8	5	3	37	23	60
Under 1 year	...	...	...	...	...	...	...	2	2	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1–4 years	...	...	...	...	...	...	27	34	61	...	...	...	45	32	77	2	2	4	...	1	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
5–14 ,,	1	...	1	...	...	...	40	97	137	1	...	1	34	33	67	1	3	4	...	1	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
15–24 ,,	3	...	3	...	1	1	20	19	39	...	1	1	3	5	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	3	2	...	2	6	8
25–34 ,,	...	2	2	...	...	...	7	6	13	...	...	...	3	4	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	2	3	5
35–44 ,,	2	...	2	...	...	...	7	3	10	...	...	...	1	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	7	3	10
45–54 ,,	1	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	8	3	11
55–64 ,,	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	7	19
65 and over	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	1	7
Not stated	...	...	...	...	...	...	2	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
																			BROKEN HILL DISTRICT.																							
All ages	2	1	3	...	...	...	3	4	7	...	...	...	3	4	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	1	5
Under 1 year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1–4 years	1	...	1	...	...	...	...	1	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5–14 ,,	...	1	1	...	...	...	3	3	6	...	...	...	2	3	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15–24 ,,	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
25–34 ,,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35–44 ,,	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
45–54 ,,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
55–64 ,,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
65 and over	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not stated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
																			REMAINDER OF STATE.																							
All ages	20	9	29	4	2	6	432	627	1,059	6	4	10	313	345	658	13	20	33	3	1	4	...	1	1	4	1	5	2	...	2	8	4	12	4	4	8	59	22	10	150	95	245
Under 1 year	...	...	...	...	...	...	7	7	14	1	1	2	12	8	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2	2	...	...	...	...	...	...
1–4 years	...	1	1	...	...	...	89	125	214	4	1	5	134	106	240	9	13	22	...	...	...	...	...	...	1	...	1	1	...	1	1	1	2	...	1	1	...	...	...	...	1	1
5–14 ,,	4	2	6	...	...	...	226	339	565	1	2	3	99	133	232	4	5	9	2	1	3	...	1	1	1	...	1	...	...	...	3	2	5	3	1	4	...	...	...	2	1	3
15–24 ,,	7	2	9	...	...	...	53	67	120	...	...	...	33	50	83	...	1	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22	6	...	8	10	18
25–34 ,,	3	...	3	2	...	2	29	46	75	...	...	...	22	23	45	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	3	...	3	...	...	...	21	8	7	14	27	41
35–44 ,,	3	3	6	1	2	3	22	33	55	...	...	...	9	17	26	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	10	8	3	31	17	48
45–54 ,,	2	...	2	...	...	...	3	6	9	...	...	...	3	5	8	...	1	1	...	...	...	...	...	...	...	1	1	...	...	...	1	...	1	1	...	1	...	...	...	35	11	46
55–64 ,,	...	...	...	...	...	...	2	4	6	...	...	...	1	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37	12	49
65 and over	1	1	2	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23	16	39
Not stated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...

Table V.—Showing the seasonal prevalence of Cerebro-spinal Fever (Meningococcal Meningitis), Diphtheria, and Membranous Croup, Infantile Paralysis (Acute Anterior Poliomyelitis), Encephalitis Lethargica, Scarlet Fever, Typhoid Fever (including Paratyphoid), and Puerperal Infection in New South Wales for the year ended 31st December, 1940.

Month.	Metropolitan Combined Districts.		Hunter River Combined Districts.		Broken Hill District.		Remainder of State.		Total.		Metropolitan Combined Districts.		Hunter River Combined Districts.		Broken Hill District.		Remainder of State.		Total.	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
	Typhoid and Paratyphoid Fever.										Scarlet Fever.									
January	3	...	1	1	1	...	2	1	7	2	100	...	42	...	...	...	85	2	227	2
February	5	...	...	...	...	...	15	3	20	3	150	1	29	...	...	...	77	...	256	1
March	7	...	...	...	...	...	4	...	11	...	136	...	26	...	...	...	134	1	296	1
April	5	2	...	...	...	...	2	...	7	2	158	...	15	...	...	...	117	1	290	1
May	1	...	...	...	1	...	...	...	2	...	150	1	25	...	1	...	103	1	279	2
June	3	...	...	...	...	...	...	...	3	...	171	...	26	1	...	...	96	4	293	5
July	...	...	...	...	...	...	...	...	...	...	144	1	52	1	...	...	100	...	296	2
August	1	...	...	...	1	...	...	...	2	...	98	...	12	...	1	...	53	...	164	...
September	...	...	...	...	...	...	...	...	...	...	123	...	9	...	...	...	47	...	179	...
October	1	...	5	...	...	...	1	...	7	...	155	...	6	...	...	...	75	...	236	...
November	...	...	2	...	...	...	1	...	3	...	162	...	7	...	3	...	96	...	268	...
December	...	...	1	...	...	...	4	2	5	2	147	...	17	...	2	...	76	1	242	1
Total	26	2	9	1	3	...	29	6	67	9	1,694	3	266	2	7	...	1,059	10	3,026	15
	Diphtheria.										Infantile Paralysis.									
January	74	1	12	1	1	...	70	1	157	3	2	...	...	...	...	...	1	1	3	1
February	65	2	19	2	...	...	51	3	135	7	2	...	...	...	...	...	...	...	2	...
March	73	2	21	...	3	...	75	4	172	6	1	...	...	...	...	...	2	...	3	...
April	87	2	17	...	2	...	72	1	178	3	...	...	...	...	...	...	...	...	...	...
May	115	1	10	...	1	...	75	3	201	4	...	...	...	...	...	...	...	...	...	...
June	119	3	7	1	...	...	45	3	171	7	...	...	...	...	...	...	...	...	...	...
July	83	3	7	1	...	...	61	8	151	12	...	...	...	...	...	...	...	...	...	...
August	73	6	8	...	...	...	43	...	124	6	...	...	...	...	...	...	...	...	...	...
September	87	3	6	1	...	...	37	4	130	8	...	...	...	...	...	...	...	...	...	...
October	92	8	9	...	...	...	28	1	129	9	...	...	...	...	...	...	1	...	1	...
November	81	...	17	1	...	...	43	4	141	5	...	...	2	...	...	...	...	...	2	...
December	55	2	33	1	...	...	58	1	146	4	...	...	...	...	...	...	...	...	...	...
Total	1,004	33	166	8	7	...	658	33	1,835*	74	5	...	2	...	...	...	4	1	11	1
	Cerebro-spinal Meningitis.										Encephalitis Lethargica.									
January	1	...	1	...	...	...	1	1	3	1	...	...	...	...	...	...	1	...	1	...
February	...	...	...	...	...	...	1	1	1	1	...	...	...	...	...	...	...	...	...	...
March	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	1
May	2	...	...	...	...	...	1	1	3	1	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...
July	2	1	2	...	...	...	2	...	6	1	...	...	...	...	...	...	...	...	...	...
August	8	...	...	...	...	...	3	2	11	2	...	...	...	...	...	...	...	...	...	...
September	5	1	...	...	...	...	2	2	7	3	...	...	...	...	...	...	1	...	1	...
October	2	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	1	1	2	1
November	2	2	...	...	...	...	2	...	4	2	1	1	...	...	...	...	...	...	1	1
December	1	1	1	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...
Total	25	5	4	...	...	...	12	8	41	13	2	1	...	...	...	...	5	2	7	3
	Typhus Fever.										Pulmonary Tuberculosis.									
January	...	...	...	...	...	...	...	...	...	...	...	42	...	3	...	...	...	19	...	64
February	...	...	...	...	...	...	...	...	...	...	...	40	...	4	...	...	...	15	...	59
March	...	...	...	...	...	...	...	...	...	...	...	38	...	6	...	1	...	15	...	60
April	...	...	...	...	...	...	...	...	...	...	...	47	...	3	...	1	...	15	...	66
May	...	...	...	...	...	...	...	...	...	...	...	48	...	1	...	1	...	21	...	71
June	...	...	...	...	...	...	...	...	...	...	...	52	...	7	...	...	...	34	...	93
July	...	...	...	...	...	...	...	...	...	...	...	49	...	9	...	...	...	36	...	94
August	...	...	...	...	...	...	...	...	...	...	...	66	...	7	...	...	...	12	...	85
September	...	...	...	...	...	...	...	...	...	...	...	60	...	3	...	1	...	23	...	87
October	...	...	...	...	...	...	...	...	...	...	...	42	...	4	...	1	...	19	...	66
November	...	...	...	...	...	...	...	...	...	...	...	49	...	5	...	...	...	13	...	67
December	...	...	...	...	...	...	...	...	...	...	...	49	...	8	...	...	...	23	...	80
Total	...	...	...	...	...	...	...	...	...	...	...	582	...	60	...	5	...	245	...	892
	*Puerperal Thrombophlebitis, Embolism and Sudden Death.										Puerperal Infection.									
January	...	1	...	...	...	1	...	...	...	2	8	1	1	...	...	...	5	3	14	4
February	...	...	...	...	...	...	...	1	...	1	17	2	2	...	...	...	5	3	24	5
March	...	2	...	...	...	...	...	...	...	2	16	4	...	1	...	...	5	1	21	6
April	...	...	...	...	...	...	...	1	...	1	13	1	2	...	...	...	4	2	19	3
May	...	1	...	...	...	...	...	...	...	1	17	3	...	...	...	...	8	2	25	5
June	...	...	...	2	...	...	...	...	...	2	28	1	...	...	...	...	4	2	32	3
July	...	...	...	...	...	...	...	...	...	...	33	1	...	...	...	...	4	1	37	2
August	...	...	...	...	...	...	...	3	...	3	10	1	...	...	...	...	5	1	15	2
September	...	...	...	1	...	...	...	1	...	2	5	1	1	...	...	...	6	5	12	6
October	...	...	...	...	...	...	...	2	...	2	13	2	...	2	...	...	4	1	17	5
November	...	...	...	...	...	...	...	1	...	1	9	...	1	...	...	...	4	...	14	...
December	...	...	...	...	...	...	...	1	...	1	10	6	1	2	...	...	5	1	16	9
Total	...	4	...	3	...	1	...	10	...	18	179	23	8	5	...	...	59	22	*246	50

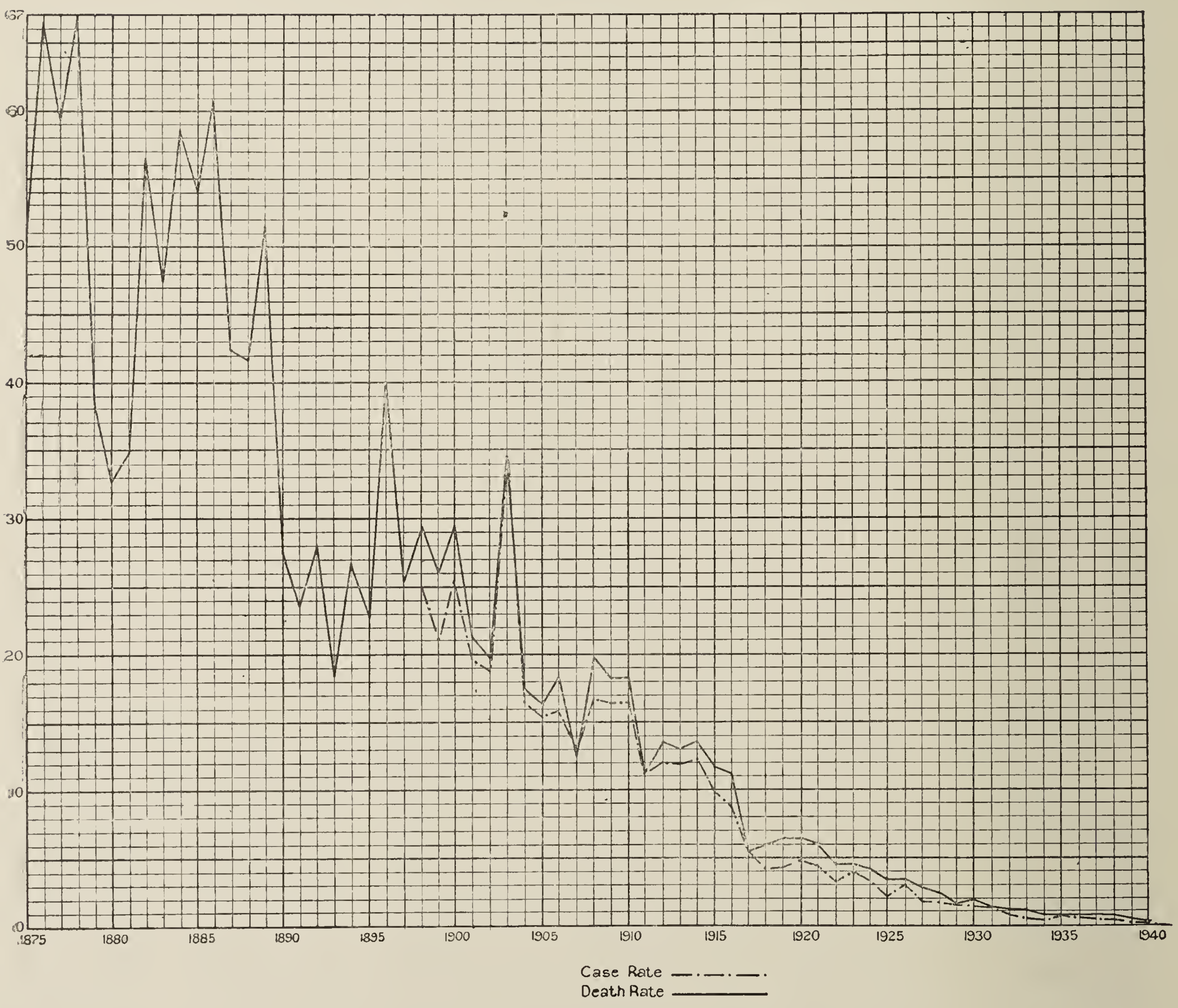
* Includes 1 case in Australian Capital Territory.

Graph 7

TYPHOID FEVER

Annual Death Rate per 100,000 of Population in N.S.W. Annual Case Rate per 10,000 of Population in N.S.W.

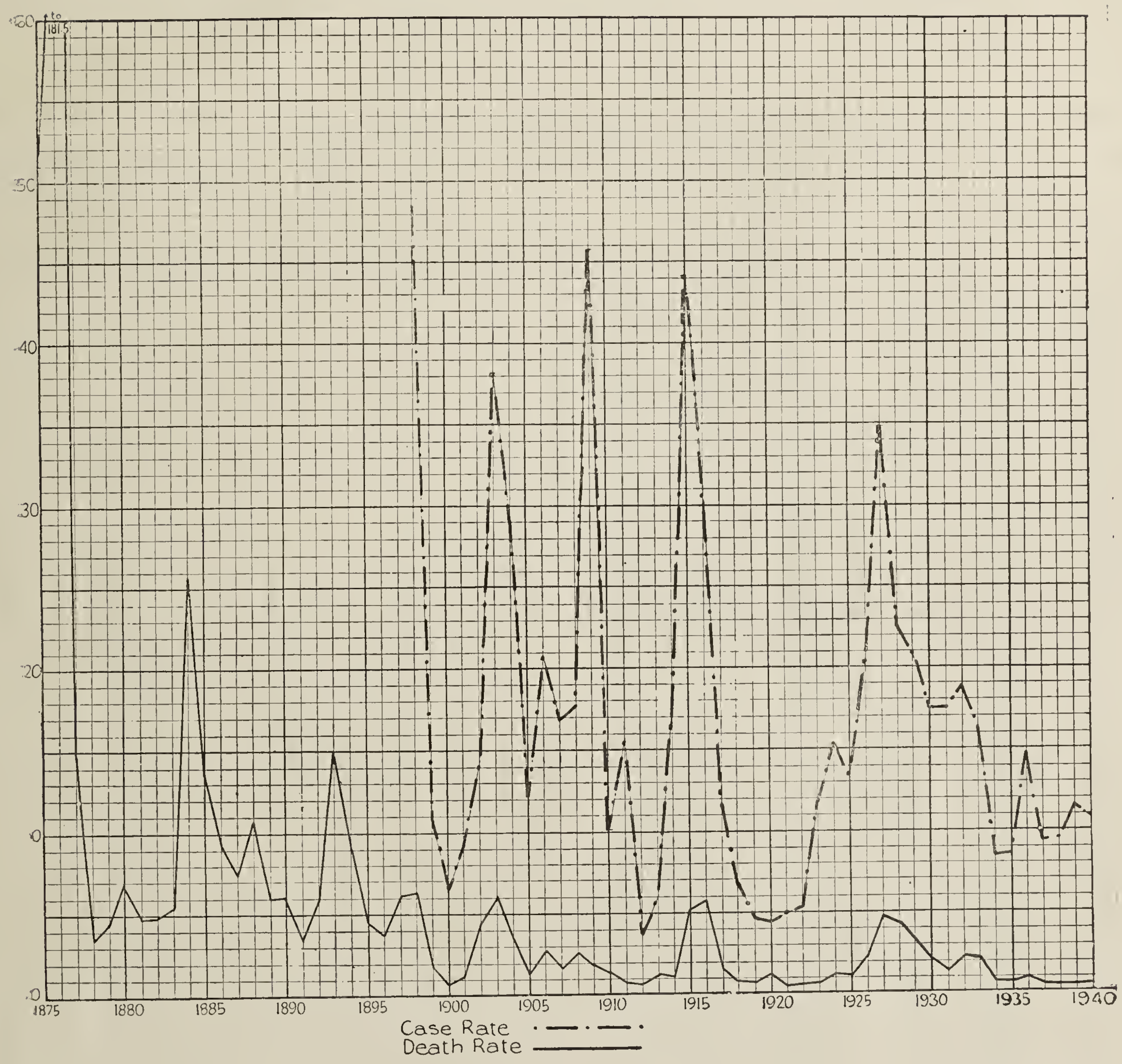
1875–1940



Graph 8

SCARLET FEVER

Annual Death Rate per 100,000 of the Population, 1875–1940 and Annual Case Rate per 10,000 of the Population, 1898–1940



SUMMARY.

District.	Typhoid Fever.		Scarlet Fever.		Diptheria.		Infantile Paralysis.		Cerebro-spinal Meningitis.		Encephalitis Lethargica.		Puerperal Infection.		Puerperal Thrombo-phlebitis, Embolism and Sudden Death.	Pulmonary Tuber-culosis.
	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	††Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Deaths.	Deaths.
Metropolitan Combined Sanitary District	26	2	1,694	3	1,004	33	5	...	25	5	2	1	179	23	4	582
Hunter River Combined District	9	1	266	2	166	8	2	...	4	...	...	...	8	5	3	60
Broken Hill District	3	...	7	...	7	...	...	...	...	...	...	...	...	...	1	5
Remainder of State—																
Municipalities	9	3	594	1	294	15	2	...	6	5	1	...	31	10	7	107
Shires	20	3	462	9	360	18	2	1	6	3	4	2	25	11	3	135
Unincorporated	...	...	3	...	3	...	...	...	...	...	...	...	2	1	...	3
Lord Howe Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A.C.T.	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
Total	67	9	3,026	15	1,835†	74	11	1	41	13	7	3	246†	50	18	892

† Including 1 case of Diphtheria and 1 of Puerperal Infection originating in the Australian Capital Territory.

Table VI.—Showing the number of Cases of infectious Diseases notified in the State of New South Wales during the Years 1898 to 1940, inclusive, and the number of deaths therefrom.

Year.	Mean Population.	Typhoid Fever.*		Scarlet Fever.*		Diphtheria.*		Plague.†		Infantile Paralysis.‡		Cerebro-spinal Meningitis.§		Encephalitis Lethargica.‖		Pulmonary Tuberculosis.¶		Puerperal Infection.**	
		Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths.	Cases.	Deaths.
1898	1,312,455	3,302	387	6,342	83	1,493	169	...	...	...	...	...	...	...	...	...	...	...	...
1899	1,333,605	2,783	347	1,389	25	741	60	...	...	...	...	...	...	...	...	...	...	...	...
1900	1,354,335	3,442	398	895	9	726	63	303	103	...	...	...	...	...	...	...	...	...	...
1901	1,366,900	2,702	291	1,288	16	922	131	...	...	...	...	...	...	...	...	...	...	...	...
1902	1,388,400	2,624	276	2,010	61	757	74	140	41	...	...	...	...	...	...	...	...	...	...
1903	1,407,400	4,855	475	5,358	87	1,214	134	2	...	...	...	...	...	...	...	...	...	...	...
1904	1,428,700	2,370	249	4,056	50	1,584	156	12	6	...	...	...	...	...	...	146	...	...	...
1905	1,454,800	2,226	239	1,773	21	1,118	102	56	21	...	...	...	...	...	...	128	...	...	...
1906	1,484,600	2,373	271	3,085	42	1,219	100	20	8	...	...	...	...	...	...	118	...	...	...
1907	1,517,900	1,972	189	2,570	26	1,376	133	51	20	...	...	...	...	...	...	161	...	...	...
1908	1,545,700	2,607	307	2,755	40	2,001	123	6	3	...	...	...	...	...	...	112	...	...	...
1909	1,577,200	2,615	287	7,178	30	2,419	166	24	7	...	...	...	...	...	...	196	...	...	...
1910	1,616,200	2,714	294	1,642	23	4,989	207	...	...	...	...	...	...	...	...	184	...	...	...
1911	1,665,265	1,864	184	2,618	11	4,784	226	...	...	...	...	...	...	...	...	222	...	...	...
1912	1,743,958	2,126	236	662	11	5,440	253	...	...	...	...	...	...	...	...	265	...	...	...
1913	1,820,066	2,187	236	1,120	23	6,380	310	...	...	47	10	...	...	...	...	228	...	...	...
1914	1,870,460	2,284	250	3,207	21	5,831	247	...	...	79	14	...	...	...	...	293	...	...	...
1915	1,891,191	1,941	219	8,335	97	5,838	264	...	...	63	11	50	33	...	...	361	86	...	...
1916	1,893,479	1,742	209	5,759	107	6,588	309	...	...	311	21	309	145	...	...	1,499	666	...	...
1917	1,905,194	1,091	103	2,255	27	5,805	247	...	...	16	12	197	98	...	...	1,319	584	...	...
1918	1,943,356	810	112	1,308	15	5,151	221	...	...	50	12	120	80	...	...	1,308	586	...	...
1919	2,000,573	857	106	959	10	2,826	114	...	...	8	3	28	23	...	...	1,102	678	...	...
1920	2,068,585	1,016	132	937	24	5,043	263	...	...	45	10	34	27	...	...	1,509	674	...	...
1921	2,108,485	949	129	1,060	8	6,854	306	2	1	184	22	30	28	...	...	1,240	791	...	...
1922	2,155,522	706	99	1,153	11	4,094	207	33	9	33	5	21	22	...	...	1,045	517	...	...
1923	2,201,531	873	104	2,623	13	3,480	176	1	1	104	8	27	22	...	...	1,218	657	...	...
1924	2,244,403	768	97	3,421	29	4,364	222	...	...	108	6	29	38	...	...	1,096	730	...	...
1925	2,295,516	533	80	3,043	27	3,004	118	...	...	57	14	37	27	...	...	1,195	617	...	...
1926	2,346,903	698	80	4,755	53	3,579	147	...	...	81	21	32	23	...	...	1,265	705	...	...
1927	2,403,881	460	68	8,369	113	4,059	179	...	...	25	4	25	10	3	27	1,158	632	...	...
1928	2,460,410	453	60	5,531	105	3,835	168	...	...	30	2	31	8	18	23	1,212	815	...	...
1929	2,503,026	438	45	5,219	78	4,274	215	...	...	241	29	28	10	26	30	1,215	1,151	44	79
1930	2,532,289	380	48	4,400	54	4,051	176	...	...	30	6	43	12	14	20	1,917	1,022	269	82
1931	2,555,871	340	35	4,477	36	4,432	168	...	...	103	10	30	9	20	16	1,588	1,014	319	83
1932	2,579,741	233	31	4,905	57	4,310	160	...	...	384	44	43	7	12	18	1,485	969	292	59
1933	2,601,782	188	28	4,259	55	3,912	169	...	...	13	4	24	5	11	15	1,441	951	222	100
1934	2,623,560	141	19	2,166	19	6,167	193	...	...	94	13	29	7	6	15	1,509	955	238	63
1935	2,645,575	173	20	2,250	18	4,913	194	...	...	181	20	29	5	7	16	1,571	939	266	72
1936	2,667,839	132	19	3,939	26	7,064	220	...	...	23	6	11	4	7	5	1,372	955	326	82
1937	2,694,679	118	18	2,493	17	4,244	143	...	...	70	††5	17	7	9	††4	1,771	991	241	52
1938	2,721,196	91	20	2,599	12	3,935	156	...	...	658	††19	22	7	11	††10	1,797	946	259	47
1939	2,749,134	63	13	3,190	11	4,103	192	...	...	33	††2	22	6	6	††4	1,687	922	243	38
1940	2,773,341	67	9	3,026	15	1,834	74	...	...	11	1	41	13	7	3	...	892	245	50

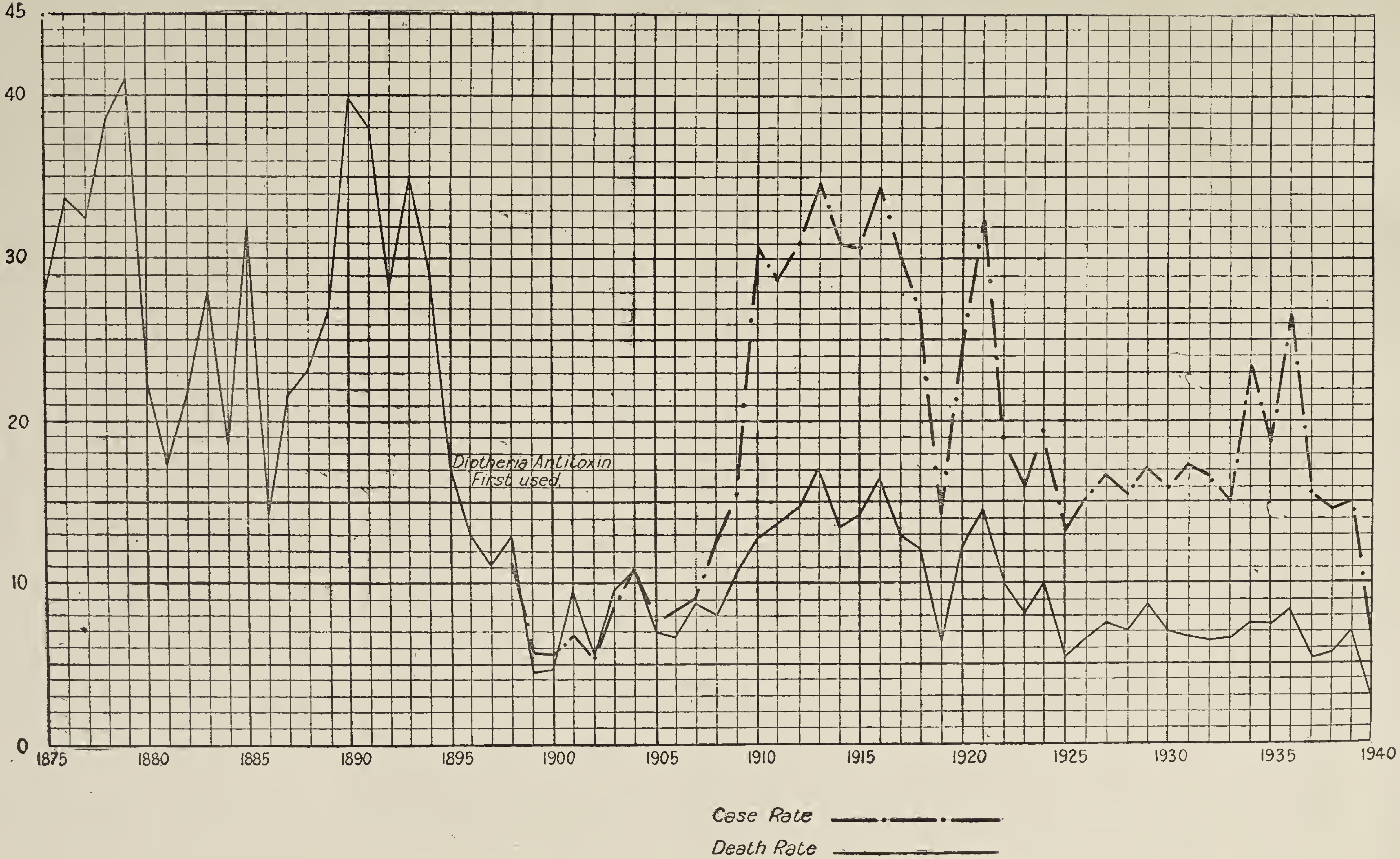
* Notifiable from 1st January, 1898.
† „ 23rd January, 1900.
‡ „ 1st February, 1912. Proclamation re-issued 14th August, 1931
§ „ 1st April, 1926.
‖ „ 11th October, 1915.
¶ „ 1904, city of Sydney only; from 1915, Metropolitan and Hunter River Districts; from 1916, Blue Mountain Districts. Notification extended to whole State March, 1929 .
** „ 16th August, 1929.
†† Deaths from notifiable forms only.

Graph 9

DIPHTHERIA

Annual Death Rate per 100,000. Annual Case Rate per 10,000 of Population in N.S.W.

1875–1940



DIVISION OF SOCIAL HYGIENE.

REPORT OF THE DIRECTOR, DIVISION OF SOCIAL HYGIENE, TO THE COMMISSIONER UNDER THE VENEREAL DISEASES ACT 1918 FOR THE YEAR ENDING 31ST DECEMBER, 1940.

Staff.

Director.—J. COOPER BOOTH, M.B., Ch.B.

Medical Officer (Senior).—J. H. ABBOTT, M.B., Ch.M.

Medical Officers.—S. H. HANKINS, M.B., Ch.M.; A. J. GEOFFROY, M.B., Ch.M., D.P.H., D.T.M., D.T.H.

Two clinic assistants, seven attendants, five clerks.

On account of the change in social conditions due to war activities, an increase was expected in the number of notifications of venereal disease infection, but instead of an increase there has been a decrease of 540 in the number received during the year.

It is difficult to account for the decline for it is not due to the departure of large numbers of men in the peak age group (twenty-one to thirty), the decrease in this group for 1939 as compared with 1938 being 112 and for 1940 as compared with 1939 being only eighty-eight. The decline has occurred in private practice and has not been balanced by an increase in registrations at public hospitals or clinics. The public hospital and clinic figure has remained fairly stable during the past three years, there being a decrease of only two for the year 1940 as compared with 1939. The decrease in the private practice total for the same period amounted to 538. The sharp fall in the percentage of notifications received from private sources (from 26.3 per cent. in 1939 to 18.7 per cent. in 1940), may be due to an increasing number of medical practitioners failing to notify infections, either on account of stress of war service or because of failure to confirm a visual diagnosis by microscopic or other examination.

There has been a decline of 4.8 per cent. in the amount of primary or acute syphilis as compared with last year, the percentage being 29.4 in the total syphilis notified.

At the divisional clinic 120 primary syphilitic infections were diagnosed in 6,001 persons who attended for medical examination during 1940, an incidence of 20 per thousand for this clinic group as compared with 28.5 per thousand in 1939 and 12 per thousand in 1938.

Fifty-eight primary syphilitic infections were notified by private practitioners during 1940 (as compared with eighty-five during 1939) and 245 by public hospitals and clinics (as compared with 327 during 1939).

Five hundred and twenty-seven former patients of the divisional clinic returned during the year with fresh infections, thirty-six (6.8 per cent.) being syphilitic. Former patients returning with new infections accounted for 24.1 per cent. of the total venereal disease diagnosed at the divisional clinic during 1940. Very few of these patients had made even a belated attempt to prevent infection.

The prophylactic facilities at the divisional clinic were extended in May, 1940, to cover all hours except between 2 and 3 a.m. daily, and 5,229 treatments were given during the year as compared with 2,680 the previous year.

There is co-operation between the defence services in New South Wales and the Health Department in matters concerning the control of venereal disease and representatives have met, and will meet each month to discuss matters of common interest. Such meetings will help to keep those concerned abreast of modern procedure and tend to make the standard of treatment more uniform and the standard of cure more exacting.

Venereal Diseases Act 1918.

Report on notifications received for the year ended 31st December, 1940.

Notifications of venereal disease infection received during 1940 totalled 5,311, a decrease of 540 as compared with the previous year. Of these notifications 18.7 per cent. came from private practitioners as compared with 26.3 per cent. in 1939 and 28.1 per cent. in 1938.

Syphilis.—Of the 5,311 total notifications received during 1940, 1,030 were for syphilis (males 679 and females 351), a figure 173 below that for 1939. The sex ratio of notified cases for 1940 was 1.93 males to one female.

Of the cases of syphilis notified during 1940, 10.8 per cent. were being treated privately as compared with 14.3 per cent. in 1939 and 23.6 per cent. in 1938.

Of the total notifications of venereal disease received during 1940, syphilis contributed 19.4 per cent. as compared with 20.6 per cent. in 1939 and 15.2 per cent. in 1938.

The notifications of syphilis gave an incidence of 37.2 per 100,000 of mean population for 1940 as compared with 43.7 in 1939 and 34.6 in 1938.

Gonorrhoea.—Of the 5,311 total notifications received during 1940, 3,896 were for gonorrhoea (males 3,420 and females 476), a figure 471 below that for 1939.

The sex ratio of notified cases was 7.18 males to one female.

Of the cases of gonorrhoea notified during 1940, 18.6 per cent. were being treated privately as compared with 26.1 per cent. in 1939 and 24.1 per cent. in 1938.

The percentage of gonorrhoea in the total notifications of venereal diseases received during 1940 was 73.3 per cent. as compared with 74.6 per cent. in 1939 and 78.2 per cent. in 1938.

The notifications of gonorrhoea gave an incidence of 140.5 per 100,000 of mean population for 1940 compared with 158.8 in 1939 and 178.0 in 1938.

OTHER FORMS OF VENEREAL DISEASE.

Soft Chancre (Chancroid). Nineteen cases (all males) were notified, being 0.36 per cent. of the total notifications of venereal disease as compared with 0.24 per cent. in 1939 and 0.11 per cent. in 1938.

Gonococcal Ophthalmia.—There were two notifications (both females) being 0.04 per cent. of the total notifications compared with 0.10 per cent. in 1939 and none in 1938.

Venereal Warts.—Ninety-one cases were notified (ninety males and one female) being 1.71 per cent. of the total notifications as compared with 0.66 per cent. in 1939 and 0.84 per cent. in 1938.

Gleet.—Two hundred and seventy-three notifications were received (270 males and three females) being 5.14 per cent. of the total notifications as compared with 3.77 per cent. in 1939 and 5.65 per cent. in 1938.

Venereal Granuloma.—No notifications were received.

Of the notifications in the above group (other forms of venereal disease) 41.04 per cent. came from private medical practitioners as compared with 78.6 per cent. in 1939 and 85.6 per cent. in 1938.

FAILURE TO CONTINUE TREATMENT.

During 1940 the names and addresses of 2,219 defaulters (1,840 males and 379 females) were notified. This figure was 186 above that for 1939.

The following table shows the percentage of notified defaulters who remained apparent permanent defaulters:—

Year.	Total Defaulters Notified.	Resumed Treatment, Dead, or Left State.	Remained in Default.	Percentage Remaining in Default.
				per cent.
1938	1,843	1,011	832	45·14
1939	2,033	1,071	962	47·32
1940	2,219	1,219	1,000	45·06

CLINICS.

Attendances at clinics for males totalled 113,850 (68.3 per cent. of this total representing attendances at the Health Department Clinic in the Division of Social Hygiene) compared with 144,017 in 1939 and 200,243 in 1938.

At the clinics for females the attendances were 25,896 (47.8 per cent. of this total being at the Special Clinic at the Rachel Forster Hospital for Women and Children) compared with 28,571 in 1939 and 30,178 in 1938.

The sex ratio of attendances was 4.4 males to one female compared with 5.0 males to one female in 1939 and 6.6 males to one female in 1938.

Bed Accommodation.—Beds are available in the metropolitan area for thirteen males and thirty-eight females.

Health Department Clinic (93 Macquarie-street, Sydney).—This clinic showed a decrease of 163 in the total of new patients and former patients who returned during the year 1940 as compared with the previous year, and closed with a carry over 1,558 patients. This is a decrease in carry over of 324 compared with the previous year. Of the new patients and former patients returned for diagnosis 63.6 per cent. were non-venereal as compared with 57.6 per cent. for the year 1939. Fifty-two point eight per cent. of all notified gonorrhoea in the male and 44.8 per cent. of all notified syphilis in the male, for the year 1940, were notified from this clinic.

The following figures are a record of the clinic registrations, discharges, etc., for 1940:—

Patients carried forward from 1939	1882
New patients registered in 1940	3,983
Former patients who have reattended after discharge	2,018
Total	7,883

Attendances, 77,734.

Pathological Examinations.—In 1940, 49,359 serological tests were made on 21,464 specimens as compared with 50,792 on 21,794 in 1939 and 46,752 on 20,278 in 1938.

During 1940, 18,726 smears were examined for the detection of gonococci as compared with 22,323 during 1939 and 24,712 during 1938.

Examination for spirochaetes numbered 361 during 1940 as compared with 362 in 1939 and 167 during 1938.

Prosecutions.—Action was taken against twenty-seven (27) persons for breach of section 5 (failure to continue under treatment) and against one for breach of section 25 (advertising to promote sale of medicine).

Table I.—Notification received during 1938 to 1940 arranged in order of districts.

Disease.	Metropolitan Area.			Newcastle District.			Remainder of State.		
	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.
Gonorrhoea	4,226	3,791	3,458	395	371	272	223	205	166
Syphilis	858	1,105	938	41	42	47	43	56	45
Soft Chancre	7	13	7	...	1	12	...	...	...
Gleet	347	210	264	3	9	9	...	2	...
Venereal Warts	52	39	91	...	...	...	...	...	...
Gonorrhoeal Ophthalmia.........	...	2	2	...	...	...	...	4	...
Venereal Granuloma	1	1	...	...	...	...	...	...	...
Total	5,491	5,161	4,760	439	423	340	266	267	211

TABLE II.—Return of Cases of Venereal Disease notified during 1940, showing forms of disease and age and sex of patients.

	0–5.		6–10.		11–15.		16–20.		21–25.		26–30.		31–35.		36–40.		41–45.		46–50.		Over 50.		Age not stated.		Total.		Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea	1	20	3	15	8	8	400	120	1,102	141	847	84	429	42	267	16	130	10	117	9	101	8	15	3	3,420	476	3,896
Syphilis	11	10	3	7	6	7	28	32	91	51	84	43	76	38	62	38	44	28	77	41	193	52	4	4	679	351	1,030
Soft Chancre	...	...	...	...	...	...	2	...	5	...	5	...	3	...	1	...	...	...	2	...	1	...	...	...	19	...	19
Gleet	...	...	...	...	...	...	6	1	43	2	68	...	61	...	39	...	20	...	20	...	10	...	3	...	270	3	273
Venereal Warts	...	...	...	...	...	...	8	...	32	1	26	...	13	...	4	...	3	...	...	...	4	...	...	...	90	1	91
Gonorrhoeal Ophthalmia	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Venereal Granuloma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	12	32	6	22	14	15	444	153	1,273	195	1,030	127	582	80	373	54	197	38	216	50	309	60	22	7	4,478	833	5,311

TABLE III.—Diagnostic Examinations for Venereal Diseases made in the Bureau of Microbiology during 1940.

Year.	Gonorrhoea (Smears and Urine).	Gonorrhoea (Complement Deviation Test).	Syphilis (Wassermann Reaction).	Syphilis (Kahn's Test).	Syphilis (Smear Spirochaetes).
1940 ……………	18,726	7,174	21,464	20,721	361

TABLE IV.—Table showing Annual Attendance Returns at Public Clinics for Treatment of Venereal Disease, 1938–1940 inclusive.

Year.	Attendances.			New Cases.					
				Gonorrhoea.			Syphilis.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
HEALTH DEPARTMENT CLINIC.									
1938	149,050	…	149,050	2,370	…	2,370	287	…	287
1939	100,300	…	100,300	2,242	…	2,242	343	…	343
1940	77,734	…	77,734	1,807	…	1,807	304	…	304
ROYAL PRINCE ALFRED HOSPITAL.									
1938	19,359	5,071	24,430	258	46	304	28	11	39
1939	19,024	4,956	23,980	145	32	177	31	20	51
1940	16,427	4,391	21,818	168	44	212	36	15	51
SYDNEY HOSPITAL.									
1938	8,063	4,712	12,775	152	32	184	35	34	69
1939	7,103	4,721	11,824	43	23	66	64	54	118
1940	5,156	4,152	9,308	52	24	76	54	49	103
ROYAL ALEXANDRA HOSPITAL FOR CHILDREN.									
1938	323	862	1,185	1	11	12	5	8	13
1939	267	899	1,166	…	9	9	5	6	11
1940	294	736	1,030	…	9	9	6	3	9
ROYAL SOUTH SYDNEY HOSPITAL.									
1938	2,904	385	3,289	39	2	41	6	8	14
1939	2,916	297	3,213	21	…	21	8	8	16
1940	2,870	286	3,156	18	3	21	10	3	13
ROYAL NORTH SHORE HOSPITAL.									
1938	2,361	1,443	3,804	63	23	86	10	10	20
1939	2,511	1,513	4,024	60	17	77	9	10	19
1940	1,813	1,518	3,331	25	17	42	10	11	21
BALMAIN DISTRICT HOSPITAL.									
1938	384	462	846	…	…	…	2	2	4
1939	468	355	923	1	…	1	3	5	8
1940	446	446	892	…	…	…	3	1	4
PARRAMATTA DISTRICT HOSPITAL.									
1938	731	216	947	41	18	59	4	1	5
1939	651	207	858	37	10	47	7	4	11
1940	505	267	767	27	11	38	14	11	25
NEWCASTLE DISTRICT HOSPITAL.									
1938	17,051	1,917	18,968	306	30	336	28	10	38
1939	10,770	1,927	12,697	223	30	253	14	19	33
1940	8,598	1,720	10,318	213	14	227	28	13	41
WESTERN SUBURBS DISTRICT HOSPITAL.									
1938	17	10	27	2	…	2	…	2	2
1939	7	5	12	…	…	…	…	…	…
1940	7	8	15	…	3	3	1	…	1
RACHEL FORSTER HOSPITAL FOR WOMEN.									
1938	…	15,100	15,100	…	350	350	…	111	111
1939	…	13,691	13,691	…	268	268	…	146	146
1940	…	12,372	12,372	…	209	209	…	145	145

CONSULTATIVE COUNCIL ON INFANTILE PARALYSIS.

Report of the Medical Officer and Secretary, Dr. K. Helms.

The Consultative Council on Infantile Paralysis has continued its work of investigating and treating patients reported to have been paralysed as a result of an infection with the virus of acute anterior poliomyelitis.

During 1940 there were eleven notifications of persons alleged to be suffering from acute anterior poliomyelitis in New South Wales. Five came from the metropolitan area of Sydney, and six from rural districts. On investigation this diagnosis could not be substantiated in two cases of persons living in the metropolitan area. One person living in a rural district contracted poliomyelitis but was not notified.

The following table gives the age, sex, whether paralysis was present in the acute stage of the disease, and the number of deaths of persons known to have been infected with acute anterior poliomyelitis in the metropolitan area of Sydney, and the rural districts of New South Wales during 1940.

Age in years.	Sex.		No Paralysis.	Paralysis.	Death.
	M.	F.			
A. Metropolitan Area.					
5	1	...	1	...	...
7	1	...	1	...	...
8	1	...	...	1	...
B. Rural Districts.					
3	...	1	...	(no information)	
6	1	...	1	...	...
8	1	...	...	1	...
9	...	2	...	2	...
14	...	1	...	...	1
23	1	...	...	1	...
Total ...	6	4	3	5	1

Date of Onset of Symptoms of Infection.—The onset of symptoms in one metropolitan case was in January. The remaining two occurred in February. In the rural districts there was one case in January, two in March, two in October, and two in November.

The council investigated or supervised the treatment of 236 patients during this year. Seventy-six (76) of these received muscle re-education as in-patients at public hospitals or convalescent homes. One hundred and eighteen (118) were given muscle re-education as out-patients at public hospitals. Information concerning the condition of forty-two (42) additional patients has been received by correspondence.

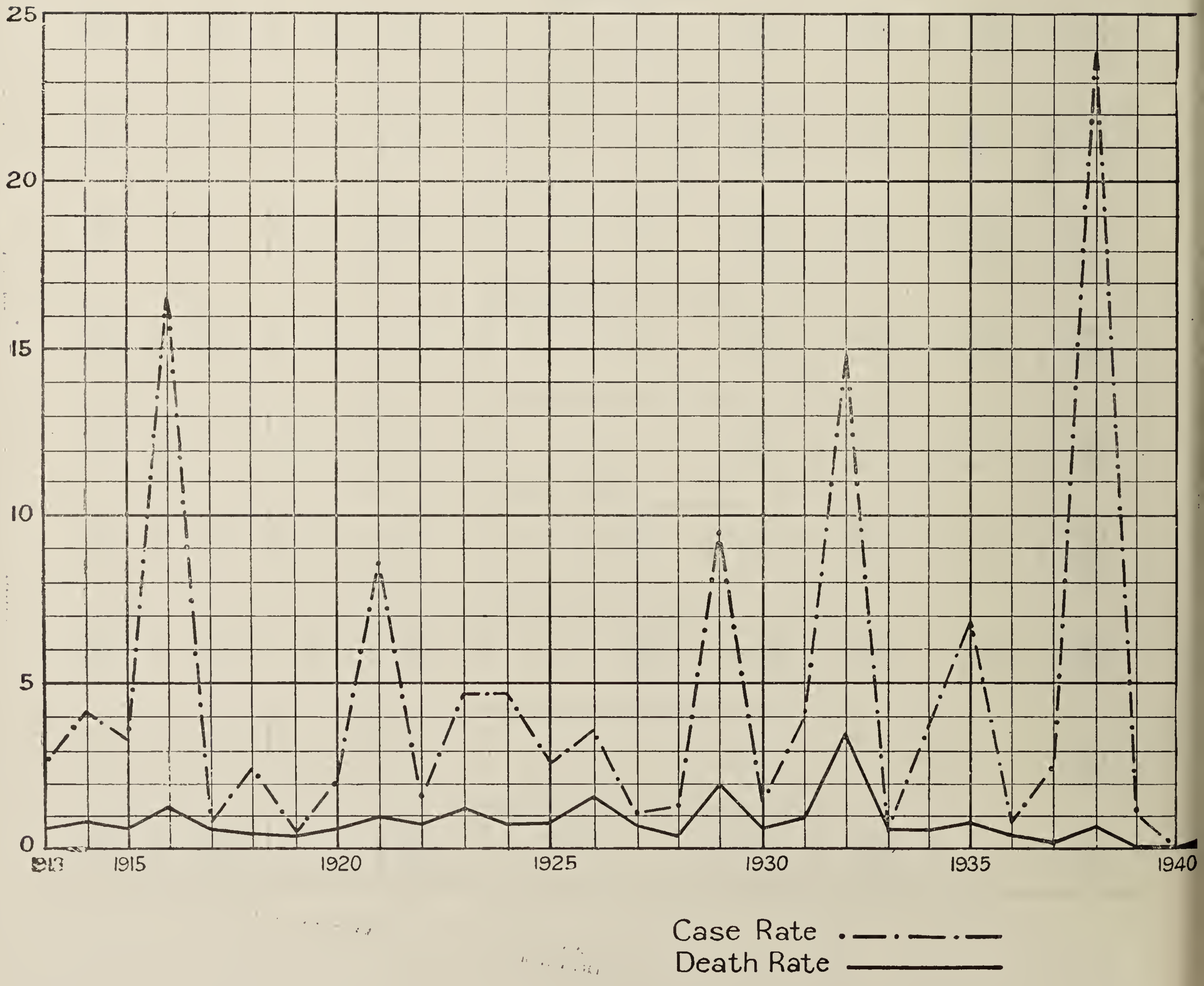
The transfer of four paralysed patients from rural districts to metropolitan hospitals was arranged.

Graph 10

INFANTILE PARALYSIS

Annual Death Rate per 100,000 of Population. Annual Case Rate per 10,000 of Population

1913–1940



SECTION I.

B.—PUBLIC HEALTH ADMINISTRATION.

CHEMICAL LABORATORY.

Report of the Government Analyst for the year ended 31st December, 1940.

Staff.

Government Analyst: Sidney G. Walton, F.A.C.I.

Second Government Analyst: Harold B. Taylor, M.C., V.D., D.Sc., F.I.C., F.A.C.I.

Senior Assistant Government Analyst: Arthur D. Dibley, A.S.T.C., A.A.C.I.

Assistant Government Analyst: Robert G. O'Brien, A.S.T.C., A.A.C.I.

Analysts: Ernest S. Ogg, B.Sc., A.A.C.I.; William F. Fisher, A.S.T.C., A.A.C.I.; Ronald C. Sparks, A.S.T.C., A.A.C.I.; Thomas A. McDonald, A.S.T.C., A.A.C.I.; Edward R. Cole, B.Sc., M.P.S.; Malcolm Andrews, B.Sc.

Laboratory Assistants: Victor Williams, Ronald McDonough, William H. Collins, John Plowman.

Laboratory Attendant: Arthur G. Fletcher.

Milk Tester: John A. Horan, H.D.D.

Clerk: Grace McGlynn.

Two office Assistants.

During the year 1940 a total of 34,761 samples were received for examination, representing an increase of 789 samples over the number submitted in the previous year. The administration of the Pure Food Act necessitated the analysis of 31,834 samples, while 2,927 were examined for the public services of the State.

Pure Food Act.

Milk.—The greater number of samples collected under the Pure Food Act consisted of milk. The following table furnishes particulars of the districts of collection and the kind and proportion of adulterations recorded:—

Particulars of Milk Adulterations.

Authority.	Total Milks Collected.	Number and Proportion of Samples Adulterated.									
		Deficient in Milk-fat.		Containing added Water.		Deficient in Milk-fat and containing added Water.		Containing Dirt.		Total Adulterations.	
		No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Metropolitan Area	14,374	72	0·50	74	0·51	7	0·04	...	...	153	1·06
Country Districts	3,774	117	3·10	82	2·17	16	0·42	3	0·07	218	5·77
Milk Board	4,407	73	1·65	45	1·02	9	0·20	1	0·02	128	2·90
Totals	22,555	262	1·16	201	0·89	32	0·14	4	0·01	499	2·21

The administration of the Pure Food Act required the examination of 9,279 samples other than milk, including 9,112 foods and 167 drugs.

Baking Powder.—Considerable difficulty has been experienced by manufacturers of cream of tartar baking powder and self-raising flour in procuring adequate supplies of cream of tartar. Acid phosphates are being used as a substitute for cream of tartar, but it has been found that acid calcium phosphate, owing to the rapid decomposition of the powders made with this article, is not a suitable substitute. Already the department has taken legal proceedings against a manufacturer for a considerable deficiency in available carbon dioxide in a baking powder of this type.

Cream Filling for Cakes.—Out of sixteen samples of cream-filling for cakes examined, ten were found to be made with cream substitutes, the fatty matter consisting chiefly of cocoanut oil.

Sausage Casings.—Over a period of some years, repeated attempts have been made to market a sausage casing containing a considerable quantiy of formaldehyde. Tests carried out in this laboratory, however, indicate that formaldehyde does enter into the meat and the use of these articles, therefore, has not been permitted.

Olive Oil.—Owing to the shortage of supplies of olive oil and the increase in price, a pronounced tendency has arisen to adulterate this article with cheaper and more readily obtainable oils. Of fifty-seven samples examined in the laboratory, fifteen were found to be adulterated, chiefly by the addition of maize or arachis oil. In some cases the substitution amounted to 100 per cent.

Samples submitted for the Public Services of the State.—The samples examined for the public services of the State numbered 2,927, particulars regarding which are given hereunder:—

Subsidised Institutions forwarded 174 samples for examination embracing milk, foods, drugs, stomach lavage, etc. The *Government Stores Department* forwarded 746 samples, including drugs, foods, inks, insecticides, linoleum, soap and cleansers, disinfectants, lubricants, etc.

The *Pharmacy Board* required the examination of one sample only in connection with the administration of the Poisons Act.

Police Authorities submitted 456 exhibits relating to criminal investigations, twenty-four in connection with the administration of the Police Offences Amendment (Drugs) Act, and five exhibits of animal viscera.

Animal Viscera.—Exhibits in connection with the alleged poisoning of five animals were submitted, phosphorus being responsible for death in one case, strychnine in one case, and no poison being found in the other three cases.

The table given hereunder furnishes details of the various charges investigated:—

Particulars of Charge.	Number of Exhibits.
CRIMINAL INVESTIGATIONS.	
Administering abortifacients	8
Arson	19
Assault	6
Counterfeit coining	10
Driving car whilst under influence of liquor	1
Wanton driving causing bodily harm	13
Malicious damage	14
Manslaughter	1
Murder	4
Suicide	6
Attempted suicide	4
Uncertified deaths	276
Animal poisoning	9
Attempted poisoning	46
Rape	10
Stealing	17
Miscellaneous	12
Total	456

Particulars of Exhibits.	Number of Exhibits.
POLICE OFFENCES AMENDMENT (DRUGS) ACT.	
Barbituric Acid Derivatives	8
Barbituric Acid Derivative and Morphine	1
Cocaine	5
Morphine	2
Opium	8
Total	24

Coroners' Enquiries.—Coroners required the examination of exhibits in connection with 146 deaths which formed the subject of police investigation.

Municipal and Departmental Authorities required the examination of 679 samples of water and 223 samples of sewage, trade waste, etc.

Systematic investigation of Burrinjuck waters has been continued during the year, approximately twelve samples being examined each month for the complete analysis of the mineral constituents. This work is being carried out for the Water Conservation and Irrigation Commission in connection with the remedial measures being undertaken at the dam.

During the year, as opportunity permitted, attention was given to the trade wastes which are discharging into water courses. With the rapid increase in the number of factories now taking place in this State, it is evident that much investigation of a specialised type will have to be undertaken if only effluents of a satisfactory character are to be discharged. The subject is one of considerable importance from the health point of view, and there is an urgent need at the moment for the establishment of a laboratory containing pilot equipment for the study and treatment of these wastes.

Industrial Hygiene authorities submitted 404 samples in connection with claims under the Workers Compensation Act and the diagnosis of illness due to occupational causes, the ventilation of theatres and public halls, etc. These included air, dust, fumes, human hair and nails, faeces, urine, and post-mortem specimens (lungs).

Miscellaneous authorities required the examination of sixty-nine samples, including air, bedding material, foods, plants re poisonous principles, leather, lubricants, paint, drugs, etc.

The most pressing need of the moment is the provision of adequate accommodation. Not only is the staff compelled to work under crowded and difficult conditions which militate against efficiency, but no space is available to set up apparatus which is more or less in continual use.

PURE FOOD ACT, 1908.

REPORT OF THE CHIEF INSPECTOR ON THE GENERAL ADMINISTRATION OF THE PURE FOOD ACT, 1908, FOR THE YEAR ENDED 31ST DECEMBER, 1940.

Staff.—*Chief Inspector,* C. V. FRANCIS, M.R.San. I.; one senior inspector; eleven metropolitan inspectors; two country inspectors; two assistants.

I submit herewith brief particulars of work performed by the staff of the Pure Food Branch for the year ended 31st December, 1940.

Milk.—Samples taken by officers of the branch during the year totalled 12,966 of which 214 failed to comply with the standard. Sixty warnings were issued and 154 prosecutions undertaken, fines and costs imposed amounting to £358 1s. 3d.

Cream.—All of 108 samples of cream submitted complied with the standard.

Margarine.—Ten samples were submitted for analysis and all complied with requirements.

Ice Cream and Ices.—One hundred and seventeen samples were purchased for analysis and all but one were in accordance with the standard. The seller of the defective sample was prosecuted successfully.

Meat.—During the year 7,273 samples were purchased for analysis for the presence of preservative, etc. It was found necessary to warn traders in respect of 152 samples of sausage meat found to contain excess preservative and in several cases a slight excess of starch. Prosecutions were instituted in connection with 216 samples containing either prohibited preservative, or (in the case of sausage meat) an excess of permitted preservative. Fines and costs imposed in these cases amounted to £572 13s. 0d.

Thirty prosecutions were instituted against sellers and processors of tripe the pH value of which was beyond the legal limits. Fines and costs totalling £111 14s. 0d. were imposed. Altogether 104 samples were submitted.

Bread.—Two hundred and forty-one samples of various kinds of bread were purchased for analysis. It was found necessary to warn traders in respect of fifty-one samples of brown or wholemeal bread which contained too much white flour. Six prosecutions of sellers of bread heavily adulterated in this manner resulted in penalties being imposed amounting to £13.

Beverages.—Two hundred and fifty samples of summer or temperance drinks, cordials, beer, spirits, and wine, were obtained for analysis. Legal proceedings were instituted in respect of six samples of non-alcoholic beverages, and in one instance of adulterated beer. Fines and costs totalling £21 16s. were imposed on the traders concerned.

Olive Oil.—During the year fifty-seven samples of edible oil were taken for analysis. Many samples of so-called "olive" oil were found to be wrongly described, and eight prosecutions were instituted against sellers in respect thereof, fines and costs totalling £39 3s. 10d. being imposed.

Other Foods and Drugs.—Many samples of other foods and drugs were obtained for analysis or other examination. Altogether, excluding milk, 8,819 samples of such articles were taken for analysis, and fines and costs were imposed in 256 cases, amounting to £783 18s. 10d.

Seizure and Destruction of Food and Drugs.—The quantity seized during the year by officers of this branch included more than 36 tons of foodstuffs, in addition to 17,711 tins, bottles, and other packages of assorted food and drugs, 198 bags of vegetables, and 8,520 head of poultry. The latter were killed after inspection at the city and suburban poultry markets. One thousand and twenty gallons of edible oil placed under seizure were ordered to be forfeited to the Crown.

Premises.—Twelve thousand four hundred and thirty-six premises were inspected by officers of the branch during the year. Notices to remedy defective conditions were issued in respect of 488 premises, and in the case of twenty-four premises found to be in a dirty condition legal proceedings were instituted, fines and costs imposed amounting to £137 14s.

General Breaches of the "Pure Food Act, 1908" *and Regulations.*—Sixty-two prosecutions were instituted against various offenders for general breaches of the regulations, fines and costs imposed in connection therewith totalling £112 3s. 0d.

Many inquiries were made by officers of the branch with regard to breaches of the Dentists' Act, the Opticians' Act, and certain other Acts of a like nature, including the Medical Practitioners' Act.

For breaches of the Dentists' Act and Nurses' Registration Act, fourteen prosecutions were instituted and fines and costs imposed amounting to £133 8s. 0d.

TABLE I.—Summary of Work performed by Pure Food Officers for the Year ended 31st December, 1940.

Analysis of Samples of Milk.	Samples taken by—		Total.
	Departmental Officers.	Municipal and Shire Council Inspectors.	
Number of samples taken from all parts of the State	12,966	5,099	18,065
Number of samples below standard	214	148	362
Number of warnings	60	31	91
Number of prosecutions ...	154	117	271
	£ s. d.	£ s. d.	£ s. d.
Amount of fines and costs...	358 1 3	365 9 6	723 10 9

Food and Drugs, other than Milk.

Number of samples taken from all parts of the State ...	8,810
Number of samples below standard	528
Number of warnings	256
Number of prosecutions	272
	£ s. d.
Amount of fines and costs..	783 18 10

TABLE II.—Summary of legal proceedings by Officers of the Pure Food Branch, during 1940.

	Prosecutions.	Fines and Costs.
		£ s. d.
Breaches of Pure Food Act and Regulations—		
Adulterated milk	154	358 1 3
Adulterated food and drugs	272	783 18 10
Unclean premises	24	137 14 0
General breaches	62	112 3 0
Breaches of Dentists' Act	12	130 0 0
Breaches of Nurses' Registration Act	2	3 8 0
Grand Total	426	1,525 5 1

TABLE III.—Summary of work carried out by Pure Food Officers under the "Pure Food Act 1908" from the date of its inception (Oct., 1909) to 31st December, 1940.

	No. of premises inspected.	Total No. of samples taken.	Total below standard.	Prosecutions undertaken.	Amount of Fines and Costs.
					£ s. d.
Premises inspected	266,970	...	...	2,495	12,603 5 0
General breaches of Act...	...	...	...	1,970	6,103 9 6
Milk samples	...	256,536	9,191	4,995	21,541 19 10
Food and drug samples...	...	92,536	9,850	5,607	16,148 7 4
Food and drug seizures...	...	...	...	427	1,828 17 4
Totals	266,970	349,072	19,041	15,494	58,225 19 0

SANITATION BRANCH.

ANNUAL REPORT OF THE SANITATION BRANCH FOR THE YEAR ENDED 31ST DECEMBER, 1940.

Staff.—

Chief Sanitary Inspector: Mr. G. A. GARROW, M.R.San. I., T.P.

Senior Sanitary Inspector: Mr. S. L. PARSONS.

Ten (10) *Certificated Inspectors* and one (1) *Certificated Inspector* and *Licensed Surveyor*.

Country and Metropolitan Districts—Routine and General Sanitary Surveys, Inspections, etc.

In each case reports on conditions found were submitted, recommendations thereon made and the council concerned was required to give effect thereto.

Towns.—Sanitary surveys were made in sixty-eight towns during which 154 buildings and 440 shops were inspected and six Closing Order Certificates issued.

Hospitals and schools inspected numbered thirty-nine, public halls and theatres eighty during which twenty-two air tests were carried out in conjunction with the Division of Industrial Hygiene.

Ninety-three hotels were inspected and reports, together with recommendations, were submitted to the licensing authorities for action.

Twenty-five swimming pools, including treatment plants, were inspected and, where considered necessary, samples of the pool and town water were procured for chemical and bacteriological examination.

Two hundred and ten inspections were made of cattle slaughtering premises and abattoirs, and in several cases it was found necessary to prosecute the trader for insanitary conditions or for failure to notify intention to kill.

During the year an intensive investigation was made in conjunction with the Police Department of complaints regarding illegal killing of diseased animals for human consumption. While no definite proof could be obtained it was found necessary to prosecute several of the traders whose premises are situated in the area of investigation for grave breaches of the Act and Regulations resulting in the respective fines ranging from a few pounds to £110.

Three investigations were made respecting applications by councils for an increase in cattle slaughtering fees.

Eight hundred and seven (807) inspections of noxious trades premises were made and several plans and sites of proposed trade premises examined.

Although it was found necessary to institute legal proceedings against a few of the traders, generally speaking, conditions relating to the trade have improved considerably, due very largely to this department's efforts.

The provisions of the Act were extended to Yarrowlumla and Colo shires.

Flock and Bedding Material.—Twenty-seven inspections of premises were made and ten samples of rags, flock and bedding material were obtained for examination.

Eighty-nine inspections were made of camps, showgrounds, reserves, saleyards, cemeteries and racecourses.

Twenty-three descriptions and plans of proposed scavenging districts were examined and in several cases it was found necessary to recast and amend descriptions, etc., before recommending approval.

Inspections of 223 sanitary depots were made during the year.

Thirty-four proposed sanitary depot sites were inspected. The number recommended for approval, including a carry-over from the previous year, is thirty-five (35).

Seventy-one investigations were made concerning pollution of watercourses and appropriate action taken when deemed necessary.

Two hundred and fifty-four samples of water, sewage, effluents and soils were obtained for chemical analysis and bacteriological examination.

Thirteen inspections were made of incinerators and advice tendered when conditions found so required.

Work accomplished in connection with unhealthy building land is as follows:—

Inspections 143, surveys 80, plans prepared 43. Solicitor's inquiries, 5,560.

Outbreaks of communicable diseases necessitated thirty-one investigations.

An outbreak of typhoid fever at Wauchope necessitated an intensive investigation, and a searching sanitary survey of the town, results of which gave this department no alternative other than to institute legal proceedings against several persons, including the council, and to require the council to fulfil its health obligations without delay.

Eight hundred and ninety-four rats and 120 mice were trapped by the rat-catching staff and delivered to the microbiological laboratory for examination. A few live rats trapped were delivered to the School of Hygiene, Sydney University.

Five hundred and fifty complaints respecting various types of nuisances were investigated.

Fines and costs imposed in connection with prosecutions for breaches of the various Acts, Ordinances and Regulations amounted to £517 9s. 0d.

Commonwealth Authorities.—As in the previous year, every assistance was given to the Commonwealth Authorities in matters relating to sanitation of camps and other Commonwealth premises.

Two lectures per week are delivered at the Military Hygiene School, Showground, Sydney, by the Chief Sanitary Inspector on behalf of the Department of Public Health.

PRIVATE HOSPITALS ACT, 1908.

Report on the operation of the Act for the year ended 31st December, 1940, by B. van Someren, M.B., Ch.M., D.P.H., Medical Officer.

At the close of the year there were 532 licenced private hospitals in New South Wales, having a total of 5,326 beds, this being a reduction of five hospitals but an increase of seventy-two beds, compared with the figures for the previous year.

Of the 532 private hospitals, 209 with a total of 3,038 beds were located in the metropolitan area, and 323, having a total of 2,288 beds, were situated in the country districts. The number of private hospitals in the metropolitan area increased by six, and the number of beds by 99, whilst in the country there was a decrease of eleven hospitals and of twenty-seven beds.

Most of the hospitals are small, only forty-four being licensed for the reception of more than twenty patients at any one time, while in 380 the accommodation does not exceed 10 cases at any one time.

Of the 532 hospitals licensed 224 were for the reception of lying-in cases only, fifty-two for medical and surgical cases only, and 256 for the reception of medical, surgical, and lying-in cases.

Inspection of Private Hospitals.—All hospitals licensed under the Act are periodically inspected (usually bi-annually) by the supervisory nurses of the department. It is gratifying to report that the licensees with very few exceptions indeed, co-operate willingly with the department in regard to any matters requiring attention, such as the effecting of improvements to premises.

Prosecutions.—There were no prosecutions under the Act during 1940, but it was necessary to issue a number of warnings on account of infringements of the Act, the more common ones being—

(1) exceeding licensed number of patients;

(2) failing to notify immediately cases of infectious disease;

(3) failing to keep hospital register entered to date.

Puerperal Infection in Private Hospitals.—Of the 136 cases of puerperal infection (excluding abortal sepsis) notified during 1940, thirty-eight cases occurred in private hospitals, compared with 36 cases for the previous year.

Rest Homes and Convalescent Homes.—Although these are not required to be licensed under the Private Hospitals Act, 1908, a record is kept of them and they are inspected from time to time by the supervisory nurses. While most are conducted in a satisfactory manner, overcrowding and other undesirable conditions are sometimes found.

Table 1.—Showing Classification of Private Hospitals Licensed at 31st December, 1940, according to nature of cases received, and the total number of beds provided by each class of hospital.

	Medical, Surgical, and Lying-in.		Medical and Surgical.		Lying-in.		Total.	
	No. of Hospitals.	No. of Beds.	No. of Hospitals.	No. of Beds.	No. of Hospitals.	No. of Beds.	No. of Hospitals.	No. of Beds.
Sydney and District	86	1,779	41	863	82	396	209	3,038
Country Districts	170	1,533	11	144	142	611	323	2,288
Total	256	3,312	52	1,007	224	1,007	532	5,326

Table 2.—Showing Classification of Private Hospitals Licensed at 31st December, 1940, with respect to size, as signified by the number of beds available.

Beds.	1.	2.	3.	4–5.	6–10.	11–20.	Over 20.	Total.
Sydney and District	6	11	20	27	60	49	36	209
Country Districts	25	29	39	64	99	59	8	323
Total	31	40	59	91	159	108	44	532

MEDICO-LEGAL SECTION AND HOSPITAL ADMISSION DEPOT.

Report of the Government Medical Officer, Sydney, for the year 1940.

Medical Staff.

Dr. C. E. Percy, Government Medical Officer for Sydney.

Dr. C. W. England, Assistant Medical Officer.

Depot assistants, three; night officer, one.

Medical Work.

Arrangements for admission to hospitals and homes—5,339 persons were admitted through the depot to metropolitan hospitals, 9,077 to State hospitals and homes, 1,152 to convalescent homes, and admissions of country residents to metropolitan and base hospitals were also arranged. Ambulance removals arranged by the depot totalled 12,223.

Medical Examinations for State Government Departments.—Eight hundred and ninety were performed during the year, some persons being visited in their own homes.

Medical Examinations of Police Recruits.—Five hundred and seventy recruits (probationary constables and police cadets) were examined, 165 being classed as fit at the first examination. One hundred and fifty-one probationary constables were examined after twelve months' service.

Medical Examination of Sick Police.—The average daily number of police on sick report was 62.1.

Medico-legal Work.

Examination of Alleged Rape and Criminal Assault cases.—One hundred and one examinations were made, exhibits connected with such cases were examined and evidence was given at various courts.

Work for the Coroner's Court.—The Government Medical Officer performs post-mortem examinations at the City Morgue in connection with suicides, murders, violent and uncertified deaths.

Lunacy Work.—The Reception House at Darlinghurst is visited daily. One thousand two hundred and forty-four persons were certified as insane.

Vaccinations.—Two hundred and forty-one vaccinations were performed for the police force and general public.

REPORT OF THE PUBLICITY BRANCH FOR THE YEAR 1940.

Health Education.

The provision of additional funds for this important work has made it possible to extend the activities of this branch in several directions.

Broadcast Health Talks.—An innovation was made, so far as this country is concerned, by the recording of thirty short talks on health subjects, six impressions of each being made. The discs have been circulated to Broadcasting Stations throughout the State and are being broadcasted regularly. Spoken broadcasts have also been given from time to time as opportunity offers, particularly during Health Week. Broadcasts on mothercraft are delivered by health centre sisters in the various country towns where there is a station.

Press Articles.—The supply to about 300 country and suburban papers each week of short articles on various health topics has continued during the year.

Health Posters.—An attractive poster was produced for the department, featuring the "Five Foundation Foods," and this has been in great demand. Another poster also in colour entitled, "Things You Should Know," has been prepared and is being printed.

The Campaign Against Diphtheria.—Councils carrying out immunization campaigns have been supplied with posters, show cards, leaflets, etc. A film entitled, "The Invisible Invader," is loaned to them for showing in local theatres.

Window Display Material.—Additional window display material, consisting of transparencies and coloured photographic enlargements, has been purchased and attracts much attention when displayed.

The Issue of Booklets.—Many booklets and leaflets have been issued during the year, several new ones being published, for which there is constant demand.

The eighth edition of the booklet, "Our Babies," was issued and distributed. The number of copies of this booklet issued free to mothers is now 420,000.

It is now thirteen years since public health education according to a definite scheme was undertaken in this State, and sufficient time has elapsed, therefore, to judge to some extent of the results. Although the work has been greatly hampered by lack of money and staff, valuable results have been achieved, and signs are not wanting that the people are much more "health conscious" than they were when this educational work was commenced.

While much remains to be done, much has already been accomplished to stimulate interest in health matters and maintain the health and well-being of the public. This is particularly important in times of war, and it is gratifying to report that during the past year it has been possible to assist the military authorities by screening motion picture films on the control of insect pests, infectious diseases and other health subjects, at the school of hygiene conducted for the troops at the showground, and also at Walgrove camp. Posters and pamphlets have also been supplied on request.

Details of the work carried out by this branch during the past year, and some suggestions for extending the work in the future, are set out hereunder.

Screenings of Health Motion Pictures.—An energetic campaign was also launched to educate the public on health matters by means of motion picture films, using the 16 mm. sound motion picture projector purchased in 1939, and a number of films of this type. Municipal and shire councils were circularised and invited to co-operate in arranging meetings at which these films could be screened and short health talks given. This appeal elicited a gratifying response, and many councils and public-spirited bodies co-operated with the department in organising meetings for this purpose. Attendances generally were excellent. Several requests for repeat screenings have been received.

In all, about ninety-two screenings of films, accompanied by health talks were given during the year. Many of these were in country towns, involving much travelling. At least 23,400 persons, including students and pupils of high schools, colleges, etc., attended these screenings.

Opportunities of acquiring authentic information in regard to health matters are appreciated by the public, and the motion picture is the most popular method of approach.

The "Talking Slide," though much less effective than the "Film Short," is another form of propaganda which might be used to advertise our baby health centre, pre-natal clinics, and other health services, or to put over important messages. All these avenues require additional funds and assistance to exploit them fully.

Press Articles.—The supply to about 300 country and suburban papers, each week of popular articles on various health topics and monthly reports on the work of the baby health centres in each locality, has been continued during the year. The co-operation of editors in publishing our matter is greatly appreciated.

The "Graflex" camera supplied some little time ago has been used on country visits and blocks featuring our baby health centres and groups of mothers and babies, etc., have been widely published. The material thus accumulated will form the nucleus of a store of blocks and stereos from which papers and magazines, books, etc., can be supplied.

Issue of New Posters.—During the year another attractive coloured poster, size 30in. x 40in., was produced for the department. This featured the "Five Foundation Foods," and being highly coloured has been in widespread demand by councils, schools, and colleges, and other organisations. It is on display at railway stations and is being framed for permanent display in baby health centres, tramway waiting rooms, on ferries and in other places.

It is worthy of note that the Milk Board, Egg Board, and other organisations representing most of the products featured in the poster, contributed to the cost.

Another similar poster in colour, entitled "Things You Should Know," was prepared during the year, and is now being printed. Another poster on tuberculosis is being printed and the poster, entitled "Always At Your Service," was reprinted during the year. When available, this will give us four valuable one-sheet posters, size 30in. x 40in., in addition to the sixteen smaller posters, size 20in. x 30in., printed previously.

Display Showcards in Trams, etc.—The seven attractive cards which were obtained some time ago for display in trams have proved a valuable form of propaganda, and many inquiries for further information on health matters have resulted. The supply of the 8,000 cards printed is now nearly exhausted and steps have been taken to obtain a further supply.

The supply of enamel plates on venereal diseases which are on display in lavatories on railway stations, wharves, in city conveniences, and workshops, is sufficient for present needs. The display of these plates has resulted in increased attendances at the clinics.

The Campaign Against Diphtheria.—Valuable assistance was rendered to councils in connection with the immunization campaigns by supplying them with copies of show cards and a poster specially issued for the purpose called "Save the Children," by the loan of a film, "The Invisible Invader," and sets of screen slides for showing in theatres; by supplying leaflets on the subject and articles to the local press; by window displays; and by screening 16 mm. films at meetings organised by councils.

Window Display Material.—Additional window display material, including attractive transparencies featuring insect carriers of disease, and other units dealing with various activities of the department, was purchased during the year. The department is now in the happy position of being able to stage attractive displays which do not suffer by comparison with many commercial exhibits.

Health Weeks.—The department assisted in Health Week campaigns conducted at Sydney, Newcastle, and in several country towns, valuable co-operation being received from local authorities, the Milk Board, and numerous organisations interested in promoting the public health. These campaigns included the publication and distribution of booklets already referred to, press articles, broadcasts, lectures, window displays, inspections, luncheon addresses in factories and workshops, physical culture displays, screening of films and slides, and other means designed to arouse public interest in health matters.

Continuous Motion Pictures in Baby Health Centres.—Another useful motion picture film was recently produced without cost to the department, in return for the advertising rights. This deals with maternal, baby and child welfare, and is being screened in baby health centres on continuous motion picture projectors. This is a valuable medium of health education which might be exploited further, particularly in regard to a film on nutrition.

It will be seen from this necessarily brief review that, within the limitations imposed by lack of money and staff, a continuous health educational campaign is being conducted in this State along lines that experience has proved to be the most successful in awakening the public to the importance of safeguarding and promoting their health. Results are apparent in many directions and there can be no doubt that the public are becoming more health-minded and more willing to avail themselves of the knowledge that scientific research and sacrifice have placed at their disposal.

SECTION I.

C.—DIVISION OF MATERNAL AND BABY WELFARE.

Annual Report for the Year Ended 31st December, 1940.

Director: Grace J. Cuthbert, M.B., Ch.M., M.R.C.O.G.

PART I.—MATERNAL WELFARE.

During the year the work of the Division showed continued progress in all services.

War conditions have not made a marked alteration in the work, but it is anticipated that the demand for social services will be greater as the tempo of the war increases owing to alteration in the economic conditions of families.

Prenatal Clinics.

Until December, 1940, the Director undertook the medical supervision of the departmental clinics, of which there are ten.

In 1937 the visits were paid as follow: one at weekly intervals and eight once a month. Because infrequent visits militate against the efficient supervision of prenatal cases, arrangements were made that the Director should visit the three clinics adjacent to the centre of the city and at an easy distance from the Department of Public Health twice per month.

Without assistance it was not possible to extend further the bi-monthly service.

The rapid increase in the number of attendances at the clinics—66 per cent. since 1937—made it imperative, however, that visits be made bi-monthly at those clinics distant from the centre of the city. Arrangements made in December whereby an obstetrician took over the weekly visits at the evening clinic at Newtown enabled the Director to attend all day clinics twice per month.

Continued increase in attendances at three of the suburban clinics indicates that further assistance will be required.

The increased medical supervision to outlying clinics has proved beneficial. Previously the patients had of necessity to wait long hours at the Outpatients' Department of the Metropolitan Obstetric Hospitals. The distribution of these clinics is such that mothers living at a distance from these hospitals are able to obtain regular supervision during their pregnancy. The public must learn that regular supervision is essential if a certain proportion of maternal deaths are to be avoided. The proportion caused by neglect on the part of the mother seeking supervision, or her failure to attend regularly, should be gradually eliminated when these facts are properly understood by all sections of the community, especially when regular supervision is readily obtainable.

So great was the demand for the new edition of the department's book, "Healthy Motherhood," that this edition of 20,000 was distributed by the end of October.

The book is used in the Outpatients' Department of the Metropolitan Obstetric Hospitals, and requests from medical practitioners and midwives have been received from all parts of the State as well as from other States. The necessity for reprinting the book arose much earlier than anticipated.

The book provides adequate and useful information for the mother concerning prenatal care and personal hygiene, and includes accurate demonstrations of prenatal and postnatal exercises. The constant and increasing demand is gratifying since the book is regarded as one of the best methods of educational propaganda for ensuring the co-operation of mothers in seeking and attaining a high standard of prenatal care.

Scheme for the Reduction of Maternal Mortality in the Metropolitan Area.

There has been an increase in the demand for the services under this scheme.

Eighteen blood transfusions were administered by the mobile unit from the Women's Hospital, Crown Street. Blood donors have been paid by the Department of Public Health and have been available with the greatest celerity, and no difficulty has been encountered in implementing this service.

Ten consultations have been arranged during the year. The small number reflects the trend of midwifery cases to go to public or private hospitals rather than to homes, and also the tendency to transfer any cases where the prognosis is indefinite or unfavourable to the care of the hospital.

The consultants named in the brochure are called directly by the medical practitioner requiring the services of a consultant.

The Special Medical Committee for the Investigation of Maternal Deaths has had six meetings during the year.

Vital Statistics.

A.—MATERNAL MORTALITY.

TABLE I.—Puerperal Deaths—International Classification.

Year.	Live Births.	Deaths from Puerperal Causes, excluding Criminal Abortions.	Maternal Mortality Rate per 1,000 Live Births, excluding Criminal Abortions.
1927	53,858	306	5·7
1928	54,800	295	5·4
1929	52,672	245	4·7
1930	52,136	260	5·0
1931	47,724	243	5·1
1932	44,905	226	5·0
1933	44,195	212	4·8
1934	43,335	214	4·9
1935	44,676	230	5·1
1936	46,193	236	5·1
1937	47,497	198	4·2
1938	47,319	181	3·8
1939	48,003	162	3·4
1940	49,382	(*a*) 172 (*b*) 175	3·5 3·5

Notes.—(*a*) On basis of classification in use to end of 1939.

(*b*) On basis of classification introduced in 1940.

TABLE II.—Relative Extent of Puerperal Deaths, N.S.W.

Year.	Deaths from Criminal Abortion.				Total Puerperal Deaths (including Criminal Abortion).			
	All Ages.		Ages 15–44 Years.		All Ages.		Ages 15–44 Years.	
	Number.	Proportion per cent. of Female Deaths at All Ages.	Number.	Proportion per cent. of Female Deaths at Ages 15–44 Years.	Number.	Proportion per cent. of Female Deaths at All Ages.	Number.	Proportion per cent. of Female Deaths at Ages 15–44 Years.
1935......	52	·49	51	3·02	282	2·65	280	16·56
1936......	56	·52	56	3·30	292	2·71	288	16·97
1937......	35	·32	35	2·22	233	2·14	233	14·75
1938......	50	·44	50	3·09	231	2·03	228	14·07
1939......	38	·32	38	2·53	200	1·71	199	13·24
1940......	34	·30	34	2·54	(*a*) 206	1·83	205	15·30
					(*b*) 209	1·86	208	15·52

NOTES.—(*a*) On basis of classification in use to end of 1939. (*b*) On basis of classification introduced in 1940.

TABLE III.—New South Wales—Deaths Incidental to Childbirth, 1932 to 1940. (On basis of classification in use from 1931 to 1939).

Causes.	1932.		1933.		1934.		1935.		1936.		1937.		1938.		1939.		1940.	
	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.
Accidents of Pregnancy	24	·53	26	·59	20	·46	13	·29	25	·54	27	·57	18	·38	16	·33	20	·40
Puerperal Haemorrhage	39	·87	31	·70	30	·69	39	·87	34	·74	43	·91	31	·66	29	·61	29	·59
Puerperal Septicaemia	26	·58	34	·77	39	·90	44	·99	45	·98	25	·52	38	·80	24	·50	24	·49
,, ,, following Abortion or Miscarriage	33	·73	32	·73	24	·55	28	·63	37	·80	27	·57	9	·19	14	·29	26	·53
Phlegmasia Alba Dolens, Puerperal Embolism, Sudden Death	16	·36	16	·36	11	·26	21	·47	21	·45	16	·34	19	·40	11	·23	18	·36
Albuminuria and Eclampsia ...	61	1·36	51	1·15	64	1·48	60	1·34	51	1·10	43	·90	46	·97	45	·94	34	·69
Other Casulaties of Childbirth...	27	·60	22	·50	26	·60	25	·56	23	·50	17	·36	20	·42	23	·48	21	·42
Total	226	5·03	212	4·80	214	4·94	230	5·15	236	5·11	198	4·17	181	3·82	162	3·38	172	3·48
Criminal Abortions	50	1·11	34	·77	49	1·13	52	1·16	56	1·21	35	·74	50	1·06	38	·79	34	·69
Grand Total	276	6·14	246	5·57	263	6·07	282	6·31	292	6·32	233	4·91	231	4·88	200	4·17	206	4·17

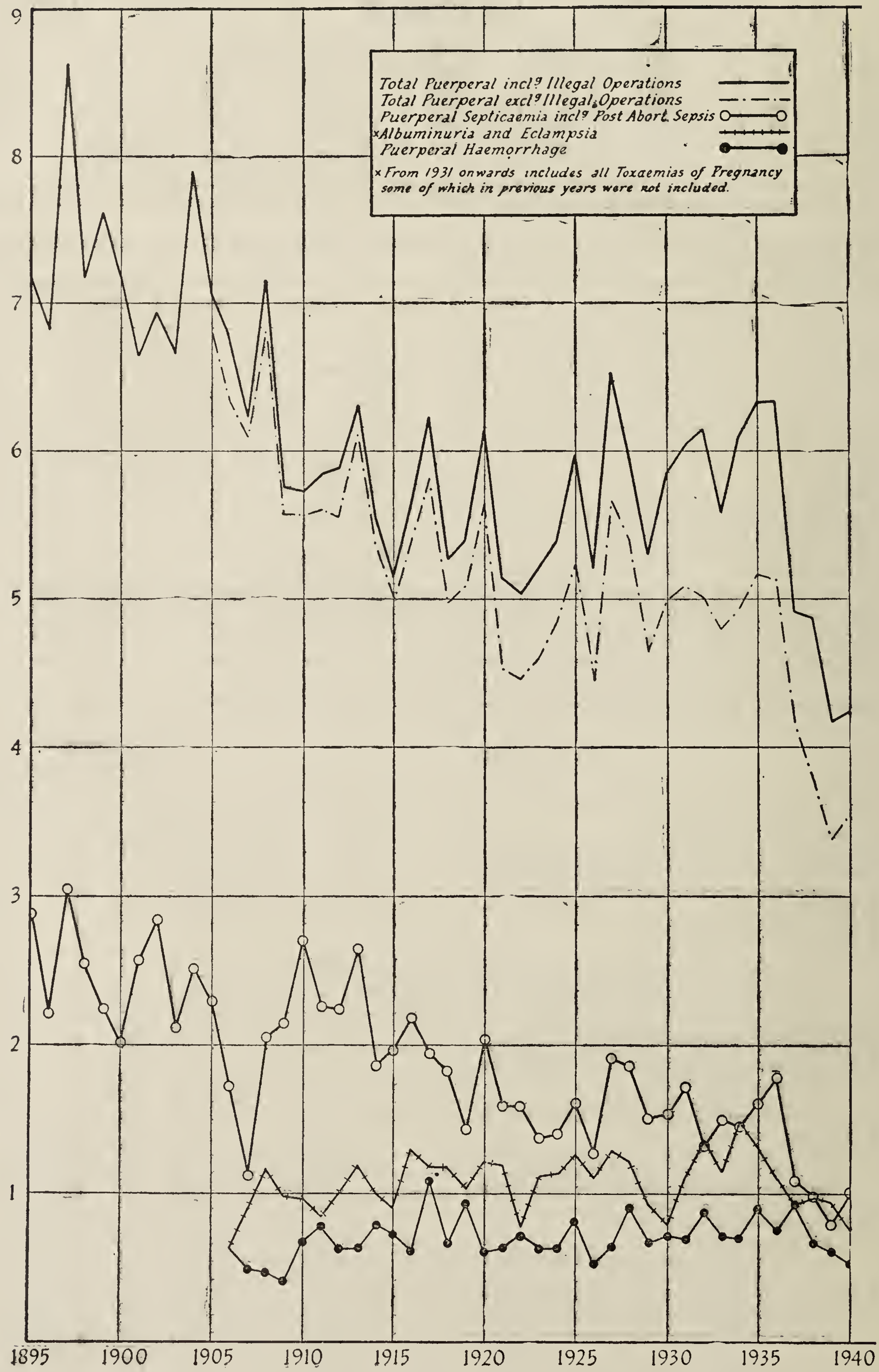
On basis of classification introduced 1940.

Cause of Death.	1940.	
	Number.	Rate per 1,000 Live Births.
140 Post-abortive infection—		
(*a*) Spontaneous, therapeutic or unspecified	26	·53
141 Abortion without mention of septic conditions—		
(*a*) Spontaneous, therapeutic or unspecified	4	·08
142 Ectopic gestation	13	·26
143 Haemorrhage of pregnancy	3	·06
144 Toxaemias of pregnancy—		
(*a*) Eclampsia of pregnancy	6	·12
(*b*) Albuminuria and nephritis of pregnancy........................	1	·02
(*c*) Acute yellow atrophy of liver associated with pregnancy	...	...
(*d*) Other toxaemias of pregnancy	2	·04
145 Other diseases and accidents of pregnancy	3	·06
146 Haemorrhage of childbirth and the puerperium	26	·53
147 Infection during childbirth and the puerperium—		
(*a*) Puerperal infections	24	·49
(*b*) Puerperal thrombophlebitis	2	·04
(*c*) Puerperal embolism and sudden death	16	·32
148 Puerperal toxaemias—		
(*a*) Puerperal eclampsia	15	·31
(*b*) Puerperal albuminuria and nephritis	6	·12
(*c*) Acute yellow atrophy of liver (post-partum)	3	·06
(*d*) Other puerperal toxaemias	4	·08
149 Other accidents of childbirth—		
(*a*) Caesarean section	9	·18
(*b*) Other surgical operations and instrumental delivery	4	·08
(*c*) Others	3	·06
150 Other or unspecified diseases of childbirth and the puerperium—		
(*a*) Puerperal diseases of the breast	2	·04
(*b*) Others	3	·06
	175	3·54
140 (*b*) Post-abortive infection—Criminal abortion	33	·69
141 (*b*) Abortion without mention of septic conditions—Criminal abortion	1	
	209	4·23

Graph 11

DEATHS DUE TO PUERPERAL CONDITION, NEW SOUTH WALES

Death Rates from Certain Causes per 1,000 Live Births for the Years 1895–1940

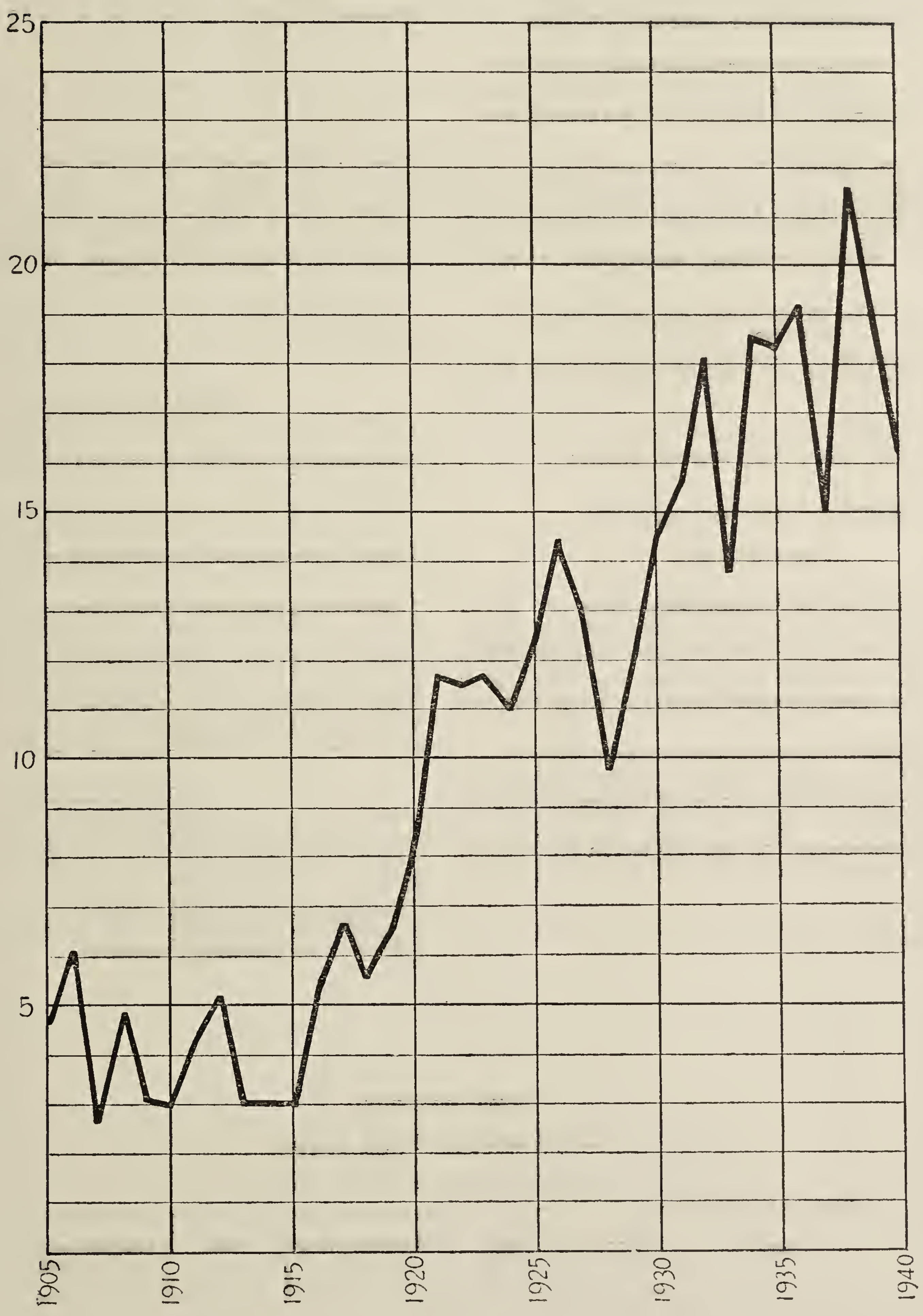


Graph 12

MATERNAL MORTALITY

Proportion per. cent of Total Maternal Mortality, 1905–1940

CRIMINAL ABORTIONS



Maternal Welfare: Vital Statistics.

A. MATERNAL MORTALITY.

Because 1940 was the first year for the use of the 1938 revision of the International List of Causes of Death, the figures for 1940 are not comparable with previous years. For example, in accordance with the revised list, acute yellow atrophy of the liver associated with pregnancy or childbirth is included with maternal deaths. Three such deaths are recorded in this year's figures which partly explains the increase of nine deaths in 1940 as compared with 1939.

TABLE I.—Puerperal Deaths—International Classification.

The maternal death-rate for New South Wales for 1940 was 3.5 per cent. per 1,000 live births. This is the same rate as recorded last year.

TABLE II.—Relative Extent of Puerperal Deaths.

In the child-bearing years 15-44, as indicated in Table II, the relative extent of maternal deaths from all puerperal causes is 15.52 per cent.; of these 2.54 per cent. were due to criminal abortion, which is a slightly higher figure than that for 1939.

TABLE III.—New South Wales—Deaths Incidental to Childbirth, 1931-1940.

The various causes of maternal mortality included in the international classification are listed under Table III and Graph 11.

Graph 12 indicates the continual increase of the percentage of maternal deaths from criminal abortion.

PART II.—INFANT WELFARE.

Vital Statistics.

TABLE IV.—Births and Birth Rates.

The total births in New South Wales for 1940 were 50,724; of these 49,382 were live births, and 1,342 were still births.

The birth-rate calculated as live births per 1,000 is 17.81 for 1940. This again shows an increase which in 1940 was 0.35.

The number of stillbirths per annum is one of grave consequence affecting the national welfare. These stillbirths and the persistent neo-natal death rate constitute one of the most serious problems in the country. Graph 13 shows clearly this high infantile mortality rate, and every effort to stimulate research and investigation for the solution of this problem should be encouraged in order to reduce this great loss of life.

The percentage of stillbirths is 2.65 per cent. per total 49,382 live births.

At present research is being undertaken into foetal and neonatal mortality under the auspices of the King George V and Queen Mary Memorial Fund and the National Health and Medical Research Council. Pathological research alone is insufficient because investigations have proved that a large percentage of the stillbirths show no pathological condition and the infantile cause is not necessarily the main factor.

It is interesting to note that in the comparison of statistics for the metropolitan area and the remainder of the State the percentage of stillbirths per total is less in the country than in the city. The country also has a higher birth rate, 20.04 per cent. as compared with 15.29 per cent.

In considering infantile mortality in New South Wales, Graph 13 emphasises the unaltered neo-natal death rate.

Graph 14 demonstrates the outstanding success of the modern method of the care of the baby and its protection against gastro-enteritis. Table V shows the causes of death in the first year of life. Of these, congenital malformation and the diseases of early infancy take foremost place; next the diseases of the respiratory system and of the large group of parasitic and infectious diseases. Whooping cough is the most serious in the latter classification.

Of these groups which take toll of infant life it is most interesting to note the decline in the number of deaths from diphtheria, a direct result of the campaign for immunisation.

Baby Health Centres.

Nurse Inspector I. Williams; Assistant Nurse Inspector R. Jones; 108 senior nurses; seventy-eight junior nurses, inclusive of seventeen relieving nurses, and exclusive of twenty-four on active service.

During 1940 twelve centres were established and the staff was increased at two centres. The work of the Baby Health Centres has been carried on with efficiency and the co-operation of the local committees and councils has been very satisfactory.

Since 1930 all new Baby Health Centres have been established subject to the fulfilment of certain conditions, namely, a local committee (Country Women's Association, Municipality or Shire Council or Citizens' Committee) provides for the rent and the upkeep of the premises which includes equipment, telephone, lighting, heating, cleaning and other minor necessities. This Department provides the nursing staff and controls the nurse's services in addition to meeting all transport costs.

Pre-School Child.

The facilities for the supervision of the pre-school child, namely, specially adapted types of weighing scales and zone charts for the second and third year have been of considerable benefit in expanding the service.

Tables showing the number of attendances at the Baby Health Centres in the metropolitan area, in Newcastle, and in the country districts are shown hereunder.

VITAL STATISTICS.

B.—BIRTHS AND BIRTH RATES.

TABLE IV.—Births and Birth Rate.

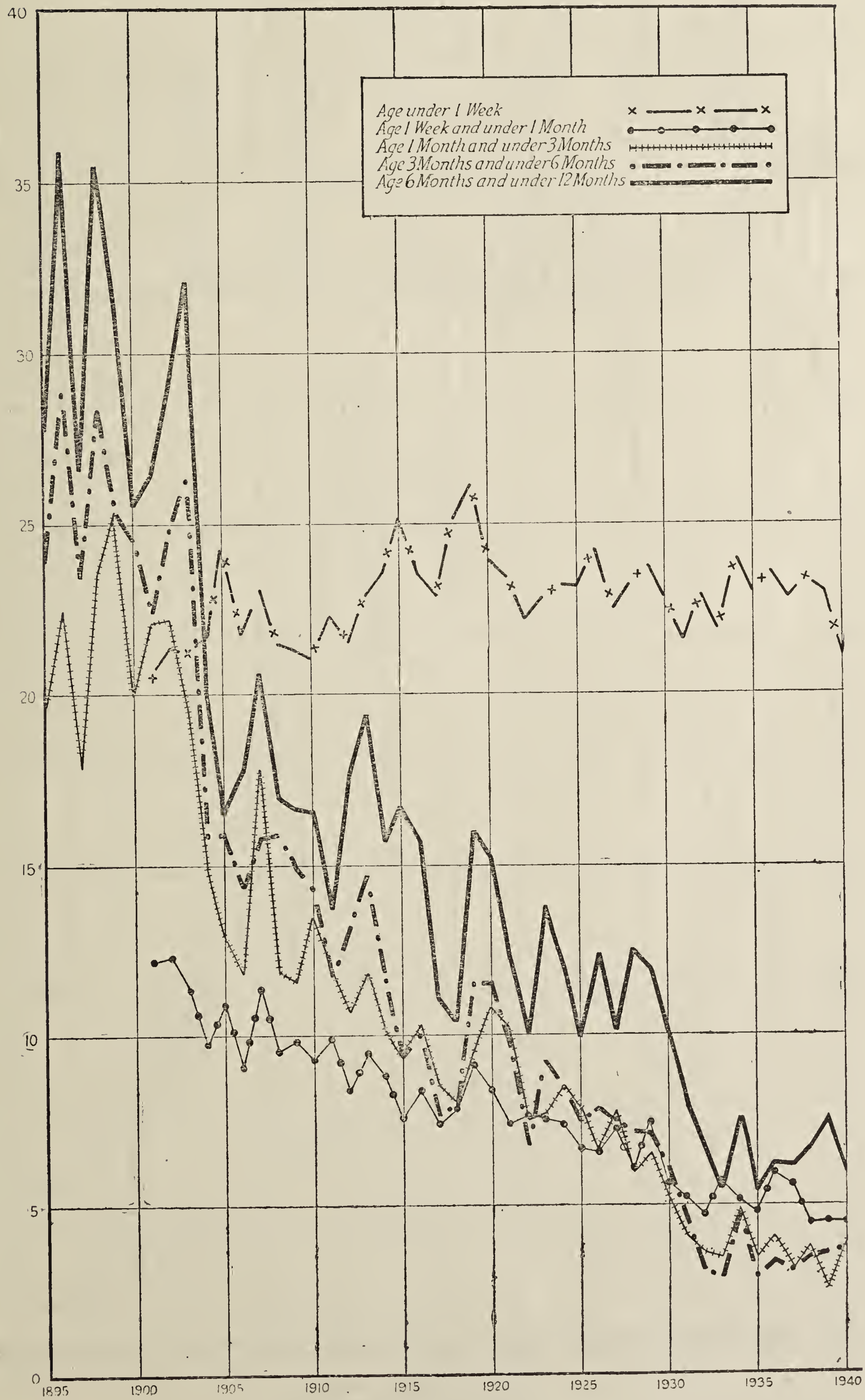
Year.	Total Births.	Live Births.	Live Birth Rate per 1,000.	Still Births.	Still Births per cent. of Total.
1927	55,524	53,858	22·40	1,666*	3·00*
1928	56,495	54,800	22·27	1,695*	3·00*
1929	54,301	52,672	21·04	1,629*	3·00*
1930	53,748	52,136	20·59	1,612*	3·00*
1931	49,200	47,724	18·67	1,476*	3·00*
1932	46,294	44,905	17·41	1,389*	3·00*
1933	45,562	44,195	16·98	1,367*	3·00*
1934	44,675	43,335	16·52	1,340*	3·00*
1935	46,077	44,676	16·89	1,401	3·04
1936	47,612	46,193	17·31	1,419	2·98
1937	48,949	47,497	17·63	1,452	2·97
1938	48,792	47,319	17·39	1,473	3·02
1939	49,363	48,003	17·46	1,360	2·76
1940	50,724	49,382	17·79	1,342	2·65

* Estimated at 3 per cent. of total births (live and still).

GRAPH 13

Infantile Mortality, New South Wales., Rates in Age Groups under 1 Year, 1895–1940

Vertical scale represents the number of deaths per 1,000 live births



Graph 14

DIARRHOEA AND ENTERITIS

Annual Death Rate per 100,000 of the Population in N.S.W., 1875–1940

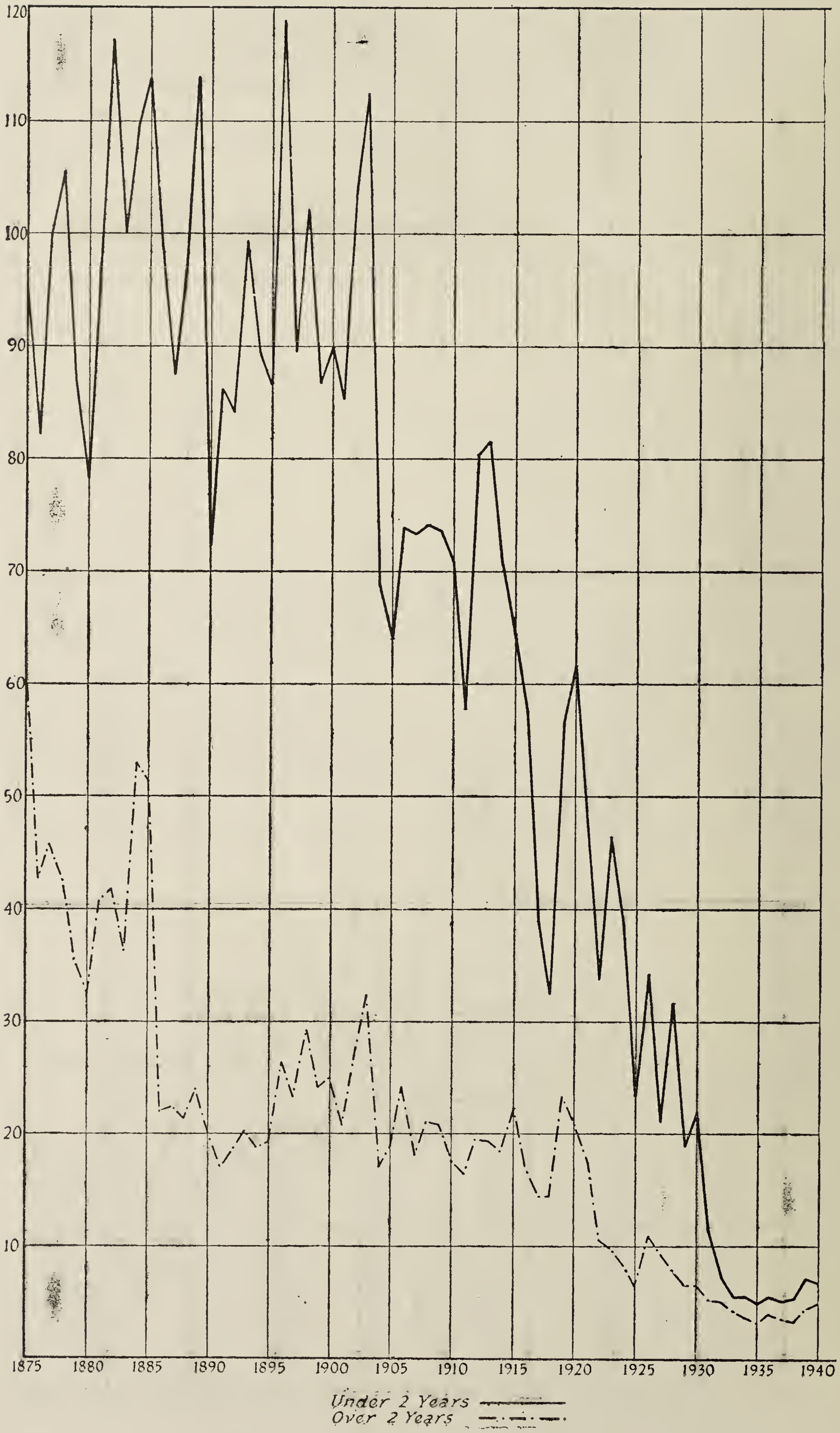


Table V.—Births and Infantile Mortality—Comparative Statistics for the Metropolitan Area and Remainder of State.

Year.	Births.				Deaths Under 1 Year of Age.	
	Total births.	Live Births.		Number of still births.	Number.	Rate per 1,000 live births.
		Number.	Rate per 1,000 of Population.			
			METROPOLITAN AREA.			
1936 …………	18,341	17,759	14·11	582	741	41·73
1937 …………	18,748	18,158	14·28	590	703	38·72
1938 …………	19,150	18,559	14·48	591	714	38·47
1939 …………	19,885	19,323	14·93	562	663	34·31
1940 …………	20,515	19,942	15·29	573	758	38·01
			REMAINDER OF STATE.			
1936 …………	29,271	28,434	20·18	837	1,267	44·56
1937 …………	30,201	29,339	20·62	862	1,229	41·89
1938 …………	29,642	28,760	19·98	882	1,266	44·02
1939 …………	29,478	28,680	19·71	798	1,306	45·54
1940 …………	30,209	29,440	20·04	769	1,169	39·71

TABLE VI.—Showing the attendance of mothers, and work performed at Baby Health Centres throughout the Metropolitan Area during the years 1938, 1939, 1940:—

Metropolitan Centres.	Visits to individual Newborn Babies.			Subsequent visits to homes of Babies.			Total Attendances.			Individual Attendances.			Test Meals.	Expectant Mothers Advised.	New cases Enrolled.
	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1940.	1940.	1940.
Alexandria	179	241	196	1,179	1,269	897	9,257	8,406	7,887	727	727	789	239	24	264
Annandale	213	178	195	344	412	236	5,595	5,711	5,800	546	550	530	214	14	254
Ashfield	256	277	311	424	357	753	16,292	16,713	18,363	1,173	1,095	1,522	803	112	559
Auburn	230	231	213	544	762	439	8,440	9,405	9,877	707	772	779	373	28	321
Balmain	274	319	259	448	891	886	9,811	10,420	9,705	803	931	747	404	54	345
Bankstown	277	206	239	790	592	533	6,920	7,488	7,938	533	527	565	293	87	359
Bexley	...	33	156	...	51	81	965	3,613	4,428	26	260	306	149	20	110
Burwood	231	343	354	385	385	267	16,384	15,656	14,139	1,449	1,388	1,310	648	105	526
Campsie	371	436	209	437	494	501	20,399	19,888	21,519	1,656	1,600	1,599	605	126	574
Chatswood	241	250	199	256	344	211	10,824	11,894	14,179	850	1,035	1,109	867	104	420
Chippendale	240	224	195	609	617	617	4,845	4,345	4,652	440	415	400	153	73	160
Cronulla	...	18	34	...	42	126	...	1,599	4,209	...	179	373	181	21	103
Daceyville	420	382	414	887	778	933	13,276	14,858	17,080	1,105	1,220	1,329	481	95	562
Dee Why	48	79	91	181	265	265	4,415	5,623	6,230	446	523	595	316	43	169
Drummoyne	...	16	62	...	45	253	...	409	2,282	...	83	188	15	18	69
Earlwood	155	199	124	686	1,510	625	8,718	10,071	11,834	563	920	992	566	82	315
Eastwood	65	114	49	188	150	67	6,202	7,871	9,536	509	607	630	378	94	227
Five Dock	230	286	211	591	701	687	12,289	11,039	10,412	853	941	928	499	97	334
Gladesville	113	181	138	502	616	565	8,266	9,939	9,471	588	765	772	349	133	348
Glebe	156	162	135	1,155	1,262	1,148	7,369	7,513	8,035	362	491	573	207	48	244
Granville	271	320	236	467	500	436	7,259	8,015	10,499	803	820	906	404	71	400
Homebush	137	133	137	265	302	359	5,524	6,386	7,543	436	504	598	277	70	218
Hornsby	143	128	130	224	152	176	7,000	7,617	8,311	320	320	220	250	77	330
Hurlstone Park (opened 16–5–40)	...	...	28	...	...	19	...	...	1,455	...	...	112	38	...	59
Hurstville	412	496	438	558	1,033	881	15,616	17,430	18,300	1,311	1,546	1,479	834	76	564
Kogarah	237	282	296	458	382	666	10,527	12,178	14,824	582	930	1,128	466	23	438
Lakemba	...	278	60	...	201	55	...	2,280	8,904	...	321	452	342	69	255
Lane Cove	141	166	128	646	614	534	9,930	11,099	10,197	890	935	852	474	107	249
Leichhardt	372	367	348	537	773	615	10,914	10,567	10,902	757	825	873	571	46	422
Lidcombe	147	137	146	578	542	420	4,475	5,497	6,773	346	326	370	483	69	199
Lindfield	58	35	110	259	145	422	7,053	8,762	9,096	478	664	746	143	43	301
Liverpool	...	375	180	...	19	263	3,687	3,944	4,136	440	502	508	172	56	258
Manly	771	202	185	486	924	916	13,644	14,628	17,014	1,094	770	844	639	126	417
Marrickville	328	367	332	647	613	337	11,952	11,261	11,268	1,015	777	599	258	47	323
Mascot	201	204	180	502	433	347	7,609	8,775	9,160	743	780	760	247	61	268
Millers Point	38	30	36	277	290	292	1,273	1,270	1,364	116	120	125	28	11	57

Graph 15

DIARRHOEA AND ENTERITIS AND RESPIRATORY DISEASES

Rate of Mortality per 1,000 Live Births among Children under one Year, 1891–1940

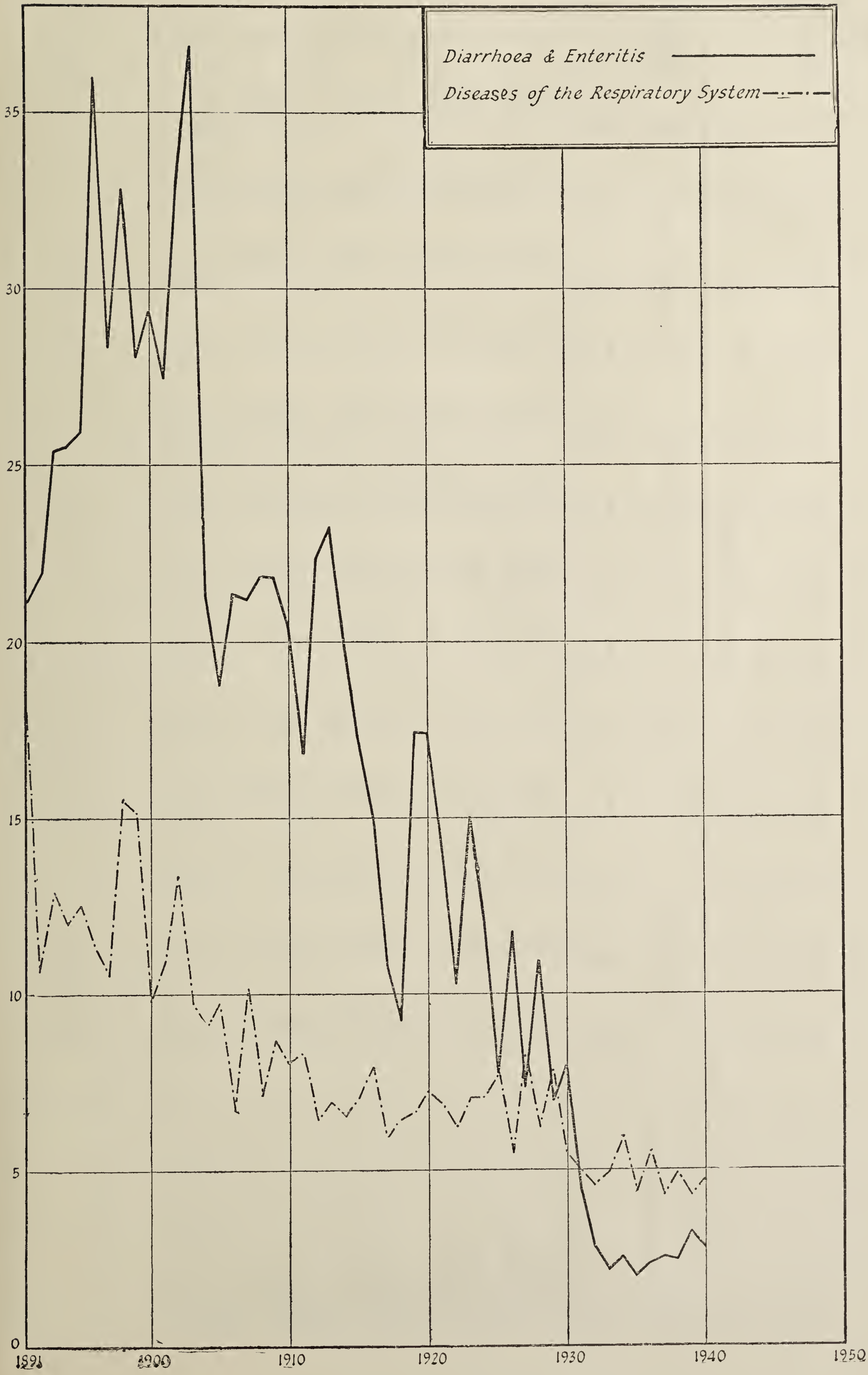


TABLE VI.—*continued.*

Metropolitan Centres.	Visits to individual Newborn Babies.			Subsequent visits to homes of Babies.			Total Attendances.			Individual Attendances.			Test Meals.	Expectant Mothers Advised.	New cases Enrolled.
	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1940.	1940.	1940.
Mortdale	...	106	97	...	160	140	3,037	3,455	3,892	248	253	273	132	43	133
Mosman	220	238	226	789	590	614	13,666	14,299	15,032	901	999	984	777	117	380
Newtown	409	358	319	1,019	1,172	967	12,030	14,090	13,582	944	848	1,158	622	38	529
Northbridge	27	33	40	37	48	37	1,876	2,698	3,648	128	134	216	43	25	65
North Sydney	444	494	424	671	751	712	12,470	14,551	15,684	1,132	1,220	1,249	461	83	529
Paddington	254	282	283	297	854	801	13,676	13,691	12,964	977	1,113	1,225	340	178	342
Parramatta	209	221	232	412	425	365	13,773	15,830	17,310	1,413	1,685	1,835	1,040	223	685
Pennant Hills	...	...	...	...	...	...	941	1,051	1,033	50	33	32	18	8	39
Petersham	215	196	178	212	181	322	10,941	9,886	10,403	1,114	1,050	936	847	8	397
Punchbowl	...	...	...	...	...	...	3,141	4,156	4,384	221	239	236	...	30	130
Pyrmont	60	62	55	318	373	377	1,495	1,942	1,917	150	122	167	36	52	84
Randwick	249	281	287	286	294	284	13,946	14,322	15,673	405	1,154	1,534	308	130	667
Rockdale	248	257	204	356	376	440	16,398	15,626	15,494	1,234	1,111	1,179	531	80	469
Rose Bay	429	504	505	998	1,188	961	15,822	17,882	20,895	1,416	1,416	1,815	1,130	107	570
Ryde	157	119	84	300	385	288	10,654	11,191	12,877	680	786	943	521	175	327
St. Peters	156	147	151	636	567	471	2,657	2,750	2,518	249	256	251	120	25	95
Surry Hills	161	177	164	723	1,239	983	8,572	9,285	8,389	769	881	639	418	92	238
Sutherland	56	58	40	138	110	77	2,898	3,246	3,647	274	235	328	100	8	137
Waverley	109	90	385	999	404	876	20,947	22,805	24,251	1,934	1,918	2,022	1,035	159	681
Willoughby	...	...	...	...	...	...	976	2,221	4,810	88	170	321	118	22	99
Woolloomooloo	242	287	285	1,176	1,969	995	8,453	9,106	9,620	455	517	508	627	51	246
Total Metropolitan	10,650	11,405	10,713	24,877	28,652	26,538	475,099	516,253	565,345	37,449	41,309	44,459	22,690	3,984	17,863

TABLE VII.—Showing the attendance of mothers and work performed at Baby Health Centres throughout Newcastle, Broken Hill and Country Districts during years 1938, 1939, 1940:—

Country Centres.	Visits to individual Newborn Babies.			Subsequent visits to homes of Babies.			Total Attendances.			Individual Attendances.			Test Meals.	Expectant Mothers Advised.	New cases Enrolled.
	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1940.	1940.	1940.
Abermain	28	17	22	31	68	52	1,194	1,178	1,010	85	94	92	24	4	43
Adamstown	53	80	60	220	245	259	5,575	6,059	6,565	473	558	523	240	79	119
Adelong	...	...	...	...	...	...	901	754	592	61	74	60	23	5	15
Albury	109	141	134	541	508	494	6,373	6,062	6,134	405	348	618	360	104	223
Appin	...	...	...	...	...	11	...	...	120	...	...	18	1	8	18
Ardlethan	1	...	...	...	...	...	267	274	393	21	37	45	15	1	18
Ariah Park	12	9	...	23	16	...	297	261	261	38	43	42	16	2	16
Armidale	115	118	132	1,200	1,271	1,152	3,907	3,640	3,581	376	410	469	218	82	226
Ballina	...	...	...	...	...	...	153	752	846	19	172	176	92	35	51
Barellan	12	10	15	9	17	8	243	255	193	45	30	29	4	0	14
Bathurst	66	95	135	189	493	737	4,263	4,416	6,481	363	493	671	298	97	279
Berrigan	...	...	3	...	...	11	...	...	66	...	...	22	5	...	22
Berrima	6	8	4	10	22	6	159	201	186	20	21	19	3	...	7
Binalong	8	5	5	60	65	34	158	196	163	22	20	23	18	3	13
Blackheath	16	10	16	125	38	48	948	847	1,014	100	100	47	35	42	41
Blayney	...	...	...	...	...	...	...	404	1,180	...	47	75	13	1	43
Boggabri	2	...	...	...	...	...	913	906	820	72	43	81	22	30	24
Bombala	...	...	7	...	...	5	450	418	515	73	77	43	8	5	21
Boorowa	36	57	43	313	363	354	478	719	407	58	73	86	54	1	40
Bowning	2	8	5	30	59	50	92	136	137	16	20	20	4	...	10
Bowral	41	38	40	245	139	126	1,289	1,172	1,583	99	108	144	75	43	75
Broken Hill Central	129	95	80	629	477	419	7,126	8,757	9,223	470	549	652	174	126	236
Broken Hill North	58	46	60	206	295	290	4,712	4,993	5,842	359	369	381	123	110	136
Broken Hill Railway Town	41	25	54	256	331	332	4,278	4,322	4,740	263	298	326	114	69	98
Broken Hill South	31	29	33	374	236	308	2,423	3,198	3,472	205	271	266	59	26	91
Bulli	62	72	57	76	113	96	1,725	2,193	2,512	209	231	268	193	2	134
Bundanoon	7	3	1	14	10	6	246	224	225	25	21	29	12	8	17
Bungendore	8	8	6	39	48	39	457	628	507	59	76	121	2	3	29
Campbelltown	...	...	...	...	...	...	...	115	895	...	39	99	23	8	32
Camden	...	...	...	...	...	...	362	1,092	1,139	80	139	112	81	13	43
Canowindra	5	14	...	17	24	...	416	1,110	1,520	55	87	177	49	43	44
Carrington	...	...	...	...	...	...	716	1,303	1,235	93	92	96	3	1	35
Cardiff	...	...	...	...	...	...	...	1,777	1,982	...	206	155	101	9	69
Casino	80	67	69	213	119	147	3,623	3,802	3,615	384	412	390	267	39	164
Cessnock	227	221	207	467	498	590	6,905	6,969	7,569	578	626	589	339	47	246
Coolamon	23	37	28	101	200	239	755	803	1,093	54	61	87	29	8	27
Cooma	65	37	86	397	433	407	1,781	1,810	1,761	210	220	246	94	25	92
Cootamundra	100	61	60	257	222	206	2,920	3,445	4,078	214	278	275	52	28	95
Corowa	22	35	39	492	413	327	2,038	1,769	1,771	163	120	134	62	40	63

TABLE VII—*continued.*

Country Centres.	Visits to individual Newborn Babies.			Subsequent visits to homes of Babies.			Total Attendances.			Individual Attendances.			Test Meals.	Expectant Mothers Advised.	New cases Enrolled.
	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1940.	1940.	1940.
Cowra	78	78	78	286	223	161	2,456	3,202	3,815	205	285	342	154	39	113
Crookwell	31	28	18	117	84	103	588	512	424	80	86	62	15	...	34
Culcairn	17	11	13	48	46	23	367	503	419	57	61	60	19	3	16
Deniliquin	49	40	41	495	262	144	2,566	2,151	1,648	166	146	129	87	32	59
Denman	8	10	14	30	74	60	304	598	417	41	40	34	13	7	13
Dora Creek	...	...	...	...	...	...	247	280	446	40	43	65	4	...	35
Dorrigo	...	...	...	...	...	...	...	...	529	...	...	81	50	1	47
Dubbo	162	137	160	768	697	631	4,925	5,011	5,275	398	440	468	311	43	190
Dungog	...	...	66	...	...	178	...	...	839	...	...	131	118	5	84
Eumungerie	...	...	...	...	...	...	126	199	164	15	23	17	...	1	4
Finley	...	8	13	...	25	25	...	127	241	...	30	34	2	4	10
Forbes	98	66	71	146	170	141	2,172	2,388	2,280	217	230	256	113	5	110
Frogmore	3	13	9	11	41	40	72	71	125	71	10	18	5	5	5
Galong	2	4	...	17	60	...	129	48	...	12	8	...	...	...	...
Ganmain	12	29	31	21	110	133	39	227	235	14	45	38	5	3	17
Geurie	8	10	7	47	46	47	427	385	383	37	40	35	19	4	5
Gilgandra	53	36	40	139	124	121	529	793	1,097	64	66	93	51	5	56
Glen Innes	72	71	62	193	192	239	2,426	2,508	2,629	218	205	287	133	15	91
Gloucester	...	...	36	...	...	32	...	...	370	...	...	62	29	4	62
Goolgowie	...	...	...	...	...	...	130	67	67	27	19	21	2	...	7
Gosford	45	35	18	44	41	57	3,479	3,382	3,800	379	347	401	96	8	215
Goulburn	181	189	177	806	826	894	7,927	6,527	6,966	764	752	672	313	72	261
Grafton	114	144	128	137	167	273	5,545	6,007	6,067	722	716	653	254	36	241
Grenfell	...	...	...	...	...	...	...	...	988	...	25	110	63	...	90
Gresford	...	...	...	...	...	...	...	155	212	...	...	27	8	3	12
Griffith	155	229	209	128	111	108	3,271	3,332	4,010	271	443	412	205	37	165
Gulgong	22	29	25	78	84	77	1,070	1,166	1,311	101	100	90	71	12	46
Gundagai	114	85	12	119	150	221	1,810	1,531	1,404	139	139	149	77	9	57
Gunnedah	66	68	46	35	8	15	2,012	2,143	2,255	158	174	175	147	17	64
Gunning	...	...	...	...	...	...	573	572	315	45	30	43	19	1	21
Hamilton	175	153	121	916	523	428	16,759	17,213	17,034	1,776	1,220	1,348	984	124	527
Harden	45	39	28	36	31	72	1,181	1,412	1,502	97	128	128	59	5	44
Hay	...	...	...	...	...	...	339	1,282	1,056	56	95	94	42	33	32
Henty	9	13	20	37	26	21	742	558	630	101	81	110	28	6	46
Inverell	122	80	83	371	413	500	3,436	4,044	3,623	329	363	403	236	33	196
Jerilderie	13	13	11	29	37	50	422	577	693	54	60	75	36	16	33
Junee	21	72	108	97	600	580	1,983	2,303	2,521	104	230	280	164	32	98
Kandos	...	7	23	11	...	54	...	41	304	...	20	75	18	2	38
Katoomba	46	94	66	556	273	290	3,780	3,588	4,097	582	505	521	172	53	112
Kempsey	147	149	110	797	516	326	3,117	3,677	3,452	350	373	417	256	31	168
Kiama	10	15	20	34	33	32	1,119	1,346	1,279	105	113	119	81	41	56
Kurri Kurri	123	101	90	617	617	584	6,917	6,580	7,107	387	323	429	327	113	110
Kyogle	85	38	27	115	90	85	2,340	2,779	2,360	219	238	248	132	20	94
Lawson	...	185	...	...	2	...	223	187	260	32	26	29	6	...	5

TABLE VII—*continued.*

Country Centres.	Visits to individual Newborn Babies.			Subsequent visits to homes of Babies.			Total Attendances.			Individual Attendances.			Test Meals.	Expectant Mothers Advised.	New cases Enrolled.
	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1940.	1940.	1940.
Leeton	44	41	46	228	211	160	3,116	2,840	3,547	242	224	280	142	22	128
Lismore	242	231	181	221	356	390	7,276	7,804	7,218	967	726	990	668	108	354
Lithgow	170	198	179	616	602	614	6,674	5,656	6,625	478	502	545	258	41	195
Lockhart	9	1	...	21	4	...	751	221	399	91	57	75	32	3	29
Maclean	...	...	...	...	...	...	603	743	736	82	104	105	36	1	49
Maitland, East	48	60	70	93	145	189	1,352	1,564	1,997	124	146	194	46	18	65
Maitland, West	140	142	146	460	557	601	6,206	7,463	8,974	694	740	861	266	113	300
Manilla	...	28	32	...	26	21	64	944	1,179	49	81	113	52	12	49
Marrar	9	113	4	41	100	92	173	339	308	12	38	38	8	8	9
Mathoura	7	...	...	...	...	...	243	139	...	27	19	...	...	...	...
Mayfield	145	96	123	460	423	368	12,815	12,952	13,279	1,108	1,118	1,169	584	93	377
Merriwa	39	2	4	129	41	69	553	856	813	66	69	62	29	...	32
Michelago	...	1	1	...	1	...	116	165	176	19	38	26	3	10	4
Milthorpe	...	...	...	...	...	...	262	229	389	35	44	42	8	...	15
Mittagong	24	19	29	169	151	138	663	663	886	73	65	75	38	5	55
Molong	...	...	...	...	...	...	621	623	792	100	89	95	44	...	35
Moree	37	47	81	351	272	465	3,272	3,514	3,510	280	228	394	213	58	143
Moss Vale	45	31	22	170	161	127	1,061	1,257	780	75	65	82	15	15	40
Mudgee	73	62	76	225	158	253	3,347	2,865	2,880	333	323	304	145	15	134
Murrurundi	14	11	8	10	28	12	334	417	534	22	26	36	41	13	23
Murwillumbah	109	130	99	114	225	185	1,866	3,912	5,446	372	539	670	410	127	279
Muswellbrook	63	54	66	295	305	284	1,885	1,800	2,260	151	156	198	53	17	84
Narrabri	45	49	33	36	13	10	1,660	1,387	1,498	136	154	130	112	5	54
Narrandera	50	53	39	193	182	149	2,659	2,758	2,612	238	270	260	152	41	96
Narromine	32	23	23	211	260	244	1,346	1,696	2,007	121	122	152	85	33	43
Nevertire	...	2	2	...	10	14	64	144	118	16	...	18	3	...	6
Newcastle	216	197	221	760	808	616	8,640	8,344	9,453	515	544	617	137	161	285
New Lambton	93	81	116	152	78	181	1,665	1,853	2,731	191	179	219	96	11	100
Nowra	37	50	45	338	318	253	3,204	3,038	3,478	380	295	302	241	92	130
Oberon	35	23	41	10	38	119	117	172	240	41	35	48	20	2	19
Orange	248	205	199	1,060	1,049	733	7,966	7,121	8,144	766	795	828	245	73	284
Parkes	116	90	106	256	259	293	2,372	2,722	2,793	208	243	278	136	16	105
Penrith	125	60	50	101	358	159	1,621	2,443	2,598	192	256	276	137	24	100
Port Kembla	31	...	...	22	...	...	1,077	1,718	2,252	137	154	177	77	9	91
Port Macquarie	10	60	48	4	65	34	295	1,012	1,144	46	109	108	49	11	35
Queanbeyan	83	85	71	470	415	464	3,943	4,524	5,098	326	377	424	286	121	166
Quirindi	39	31	40	69	47	111	717	1,789	1,503	83	109	135	165	23	82
Raymond Terrace	...	...	...	...	...	...	...	...	223	...	...	34	23	3	34
Richmond	...	...	...	...	...	...	2,283	2,396	2,335	146	149	195	85	35	57
Riverstone	...	...	...	...	...	...	1,225	1,106	1,272	46	84	119	33	13	37
Rye Park	3	17	3	9	41	20	72	194	140	14	21	16	2	2	4
Rylstone	9	12	10	42	41	37	665	624	203	71	57	44	11	1	18
St. Mary's	14	12	9	32	40	30	1,000	1,160	931	114	130	125	23	12	40
Scone	16	38	20	22	38	30	413	801	1,003	35	46	59	35	19	32

TABLE VII—*continued.*

Country Centres.	Visits to individual Newborn Babies.			Subsequent visits to homes of Babies.			Total Attendances.			Individual Attendances.			Test Meals.	Expectant Mothers Advised.	New cases Enrolled.
	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1938.	1939.	1940.	1940.	1940.	1940.
Singleton	69	100	134	292	249	159	1,751	1,954	2,435	159	168	228	168	18	102
Singleton South	...	...	...	...	...	...	807	909	1,015	73	87	75	43	1	27
Stockinbingal	6	2	...	7	5	...	142	283	365	17	25	30	9	...	17
Stockton	...	...	...	...	...	...	1,909	2,099	2,533	110	128	144	46	20	48
Stuart Town	13	6	8	46	54	50	351	334	364	36	40	41	6	14	10
Swansea	...	...	...	...	...	...	809	1,124	826	147	227	142	25	4	45
Tamworth	146	147	139	381	309	229	7,736	7,235	7,808	884	764	802	425	92	269
Taree	68	58	75	58	146	210	1,669	3,189	3,373	281	296	322	188	63	146
Temora	64	54	58	392	272	308	3,318	2,867	3,330	234	224	260	87	21	94
The Rock	...	...	...	...	...	...	204	133	134	34	46	32	16	3	11
Tocumwal	...	8	...	...	15	15	...	80	229	...	16	39	4	2	15
Trangie	6	10	3	92	71	56	769	827	874	65	61	62	31	6	29
Tumut	...	...	...	...	...	...	1,089	929	741	93	93	112	51	18	37
Uralla	39	28	35	163	180	232	1,602	1,612	1,561	118	132	167	47	40	77
Wagga	184	152	160	661	574	428	7,898	8,108	8,282	876	973	796	513	88	380
Walcha	64	60	44	233	210	230	1,528	1,341	1,099	163	140	146	41	19	46
Wallsend	94	61	28	167	79	106	2,699	2,475	3,687	283	285	309	129	20	152
Wallsend, West	...	...	...	...	...	...	2,111	1,731	1,499	195	297	147	8	20	47
Waratah	26	...	...	60	...	...	2,202	2,088	1,903	200	362	215	55	27	62
Warren	23	29	19	32	69	101	170	559	718	48	50	65	44	5	34
Wauchope	...	...	33	...	...	...	...	...	311	...	...	65	16	...	43
Wellington	115	126	162	494	556	615	3,956	4,008	4,560	352	405	447	273	45	157
Werris Creek	11	8	22	19	12	24	827	974	972	89	81	85	49	9	34
Weston	37	31	35	182	219	147	2,254	2,241	2,098	147	154	158	38	38	55
West Wyalong	2	...	...	...	3	...	890	912	737	99	112	121	40	6	52
Windsor	19	...	8	9	...	13	2,138	1,937	2,392	160	156	201	91	20	84
Wingham	...	...	...	...	...	...	594	1,326	1,409	96	140	131	54	19	50
Wollongong	210	228	267	706	650	467	6,307	6,899	7,600	724	769	794	504	40	326
Woodstock	...	...	...	...	...	...	213	128	120	22	10	18	7	7	6
Woolgoolga	...	...	...	...	...	...	...	...	189	...	...	29	29	1	29
Woy Woy	...	...	18	8	...	8	1,042	1,017	961	121	102	107	9	1	59
Wyong	...	6	...	...	...	...	1,579	1,221	1,592	154	157	157	33	12	96
Yanco	...	...	...	...	...	...	253	276	243	22	30	21	10	4	14
Yass	59	46	43	724	530	461	2,169	2,552	2,609	264	421	235	88	53	114
Yenda	11	1	...	3	2	...	43	58	94	12	16	22	3	...	16
Young	75	83	...	124	140	...	1,984	2,293	2,240	158	237	210	59	20	173
	7,212	6,944	6,915	26,158	25,596	24,842	312,961	336,169	365,482	29,768	31,871	34,794	16,692	4,174	13,828
Total Country	7,212	6,944	6,915	26,158	25,596	24,842	312,961	336,169	365,482	29,768	31,871	34,794	16,692	4,174	13,828
Total Metropolitan	10,650	11,405	10,713	24,877	28,652	26,538	475,099	516,253	565,345	37,449	41,309	44,459	22,690	3,984	17,863
Grand Total	17,862	18,349	17,628	51,035	54,248	51,380	788,060	852,422	930,827	67,217	73,180	79,253	39,382	8,158	31,691

SECTION I.

D.—DIVISION OF TUBERCULOSIS.

REPORT OF THE DIRECTOR FOR THE YEAR ENDED 31ST DECEMBER, 1940.

Staff.—

Director (part-time): Dr. H. G. WALLACE.

Medical Officer (full-time): Dr. J. HUGHES.

One clerk. Nine visiting nurses.

Owing to the continuance of war conditions and the difficulties caused by the consequent decrease of departmental medical staff, the Director was able to devote less time than usual to the work of the Division. This has resulted in an increase of the responsibilities thrown upon the Medical Officer. The acute shortage of accommodation in sanatoria, caused partly by the increase in the number of notifications, remained a difficult problem throughout the year. Steps were taken to increase the number of beds at the Waterfall Sanatorium, and the Randwick Auxiliary Hospital and to open a special ward at the Lidcombe State Hospital which should be available in the new year.

The "group radiography" system, by which groups of persons desiring radiological examination of the chest by the miniature film method attend at stated times, was extended during the year, over 1,000 persons availing themselves of this service. By arrangement with Sydney radiologists in private practice, these persons are radiologically examined for a small fee. Many cases of active and healed pulmonary tuberculosis have been detected by this method, which is capable of considerable extension and has proved itself very reliable. Those cases which appear doubtful on the miniature film are given a further examination by means of a large film, but with improvements in technique the proportion of such cases is diminishing.

Dr. Douglas Anderson continued the survey of persons attending at the Tuberculosis Division for the application of the Mantoux Test. The test was increasingly used at the various anti-tuberculosis clinics in the State. Investigation by means of the patch test was also continued by Dr. Anderson.

Clinics.—The seven anti-tuberculosis clinics in the State (six in the metropolitan area of Sydney and one at Newcastle) continued to carry out very good work. Attendances numbered 27,257, an increase of 4,221 on those for 1939. Every clinic showed increased attendances, with the exception of that of the Anti-tuberculosis Association of New South Wales, which showed a decrease of 371 attendances. A night clinic was established by the association during the year, with Government assistance, which should be of great use to persons unable to attend in the day-time.

Additional clinics are required in the metropolitan area of Sydney, and it has been suggested that they might most conveniently be located at the Parramatta District Hospital and the St. George District Hospital.

Health Education.—Dr. Hughes gave a number of lectures, to audiences in both metropolitan and country areas, on the diagnosis and prevention of tuberculosis. The Publicity Officer exhibited sound films in many parts of the State, showing methods of prevention and treatment. An extension of these valuable methods of securing public co-operation is highly desirable, but must await the provision of additional staff adequately trained to assist in this important work.

Notifications.—One thousand nine hundred and seven cases of pulmonary tuberculosis were notified during 1940, compared with 1,687 in 1939, an increase of 220 notifications for the year. In the metropolitan district of Sydney there was an increase of ninety-one notifications, in the Hunter River and the Broken Hill districts decreases of forty and four cases respectively, and in the remainder of the State an increase of 173 cases. This increased number of cases notified may be attributed to a better knowledge of, and increased public demand for, the application of modern methods of diagnosis. Although unfortunately many of the cases notified were in an advanced stage of the disease, there was a noticeable increase in the early cases which is very gratifying.

Deaths.—Deaths from pulmonary tuberculosis during 1940 numbered 892, giving a death-rate of 32.2 per 100,000 of population. Not only is this the lowest rate ever recorded in New South Wales, but it shows continued progress in the campaign to eradicate the disease. The rate for males was 41.5 and for females 22.8, marking a steady decline in each. The deaths from non-pulmonary tuberculosis fell in 1940 to forty-four, giving a death rate of 1.6 per 100,000, which again was the lowest rate ever recorded in the State.

Urgent Requirements.

1. The most urgent requirement is still the provision of additional beds in sanatoria. Until they are available, not only will patients be forced to wait for admission urgently required, but any considerable case-finding programme must be left in abeyance.

2. When beds are available, a considerable extension of facilities for the diagnosis of pulmonary tuberculosis by modern methods is desirable, including provision for radiological methods of diagnosis by the miniature film method, and the application of other methods such as the Mantoux Test and the patch test.

3. The erection of a modern chest hospital in Sydney, ultimately providing at least 300 beds, is desirable, so that modern methods of treatment may be extended, research facilitated, and a clearing-house for admissions to sanatoria provided. Such an institution could be of great assistance, also, in the work of the various clinics.

4. Two more anti-tuberculosis clinics in the metropolitan area of Sydney are required, as mentioned previously.

5. Amendments of the Public Health Act are desirable, in order that all forms of tuberculosis should be made notifiable, and that, as in most other countries, segregation of dangerous and careless patients can be made compulsory.

6. Better organization for after-care and rehabilitation of patients after discharge from sanatoria, and for the care of their dependants while the breadwinner undergoes sanatorium treatment, are matters requiring considerable thought and planning. The co-operation of the Federal Government in the provision of adequate pensions for those disabled by tuberculosis is also desirable. The existing invalid pension rate has proved very inadequate for the proper nourishment and housing of such persons.

To sum up, the year 1940 has been one of continued progress, despite difficulties, in the campaign against tuberculosis, and has revealed ever more clearly the deficiencies of our existing organisation and the lines along which developments for future progress may be attained. The thanks of the Division are due to the authorities controlling clinics and sanatoria for their active and helpful co-operation throughout the year.

H. G. WALLACE, Director.

TABLE I.—Showing age and sex incidence of notified cases of Pulmonary Tuberculosis for the year 1940.

Age Period.	Metropolitan Combined Sanitary District			Hunter River Combined Sanitary District.			Broken Hill Combined Sanitary District.			Remainder of State.			Whole State.		
	Mean Population : 1,384,520.			Mean Population : 225,700.			Mean Population : 28,090.			Mean Population : 1,135,031.			Mean Population : 2,773,341.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Under 1 year	...	2	2	...	...	...	...	...	...	...	...	...	...	2	2
1– 4 years	3	1	4	...	...	...	...	...	...	...	4	4	3	5	8
5–14 „	2	6	8	...	...	...	...	...	...	...	4	4	2	10	12
15–24 „	103	135	238	3	5	8	1	...	1	32	37	69	139	177	316
25–34 „	171	151	322	4	2	6	2	...	2	43	58	101	220	211	431
35–44 „	204	91	295	6	3	9	1	...	1	48	26	74	259	120	379
45–54 „	189	62	251	11	5	16	1	...	1	67	23	90	268	90	358
55–64 „	144	45	189	8	4	12	...	...	...	54	13	67	206	62	268
65 and over	60	21	81	6	1	7	1	...	1	31	13	44	98	35	133
All ages	876	514	1,390	38	20	58	6	...	6	275	178	453	1,195	712	1,907

Graph 16

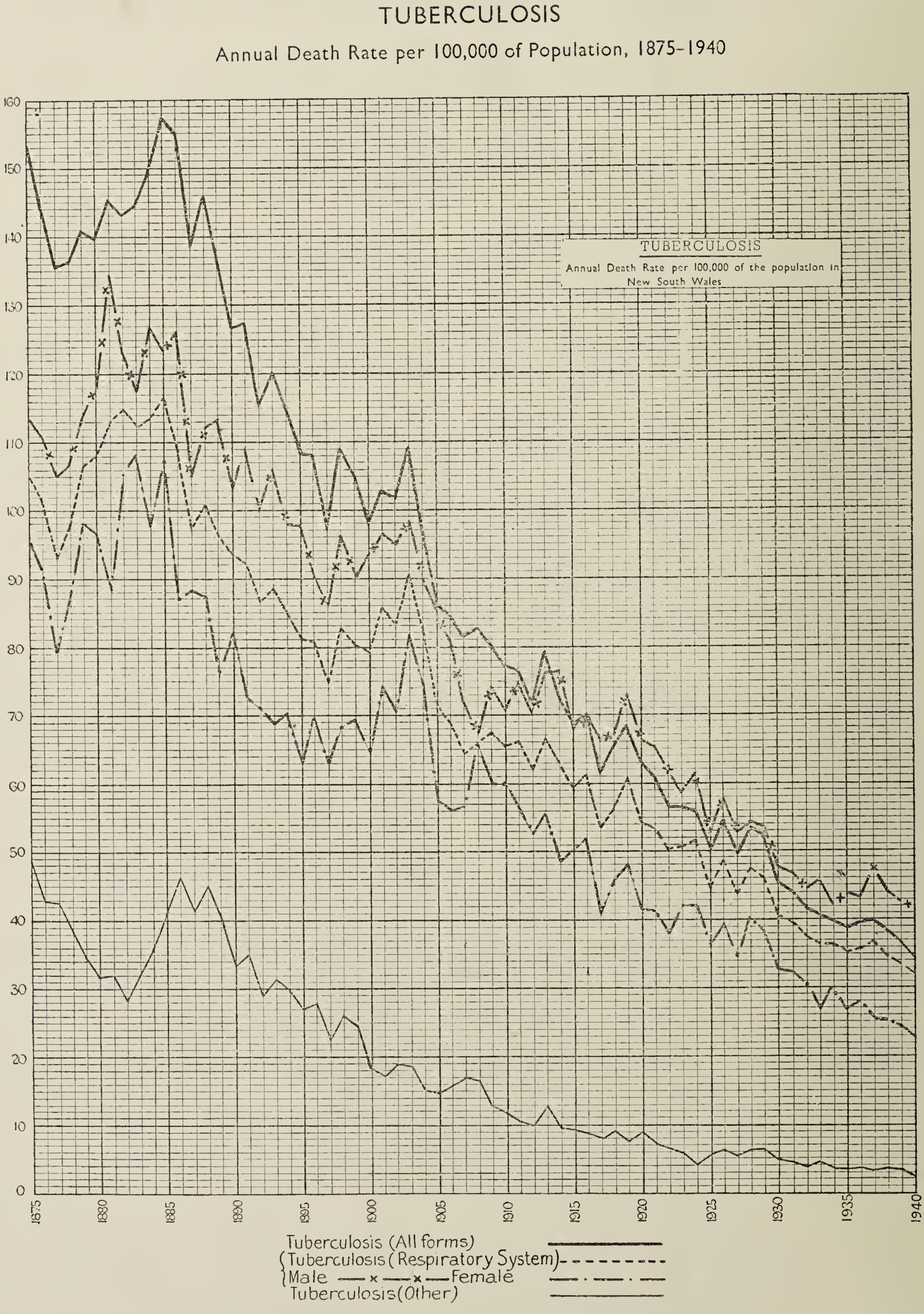

TUBERCULOSIS
Annual Death Rate per 100,000 of Population, 1875-1940
TUBERCULOSIS
Annual Death Rate per 100,000 of the population in New South Wales
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
1875
1880
1885
1890
1895
1900
1905
1910
1915
1920
1925
1930
1935
1940
Tuberculosis (All forms)
Tuberculosis (Respiratory System)
Male —x—x— Female —·—·—
Tuberculosis (Other)

Table II.—Showing the number of deaths from all forms of Tuberculosis in (*a*) Metropolis, (*b*) whole State, during the year ended 31st December, 1940.

	Metropolis.			Whole State.		
	Males.	Females.	Total.	Males.	Females.	Total.
Respiratory system	387	195	582	578	314	892
Meninges and nervous system	4	6	10	8	14	22
Other	17	7	24	28	16	44
Total	403	208	616	614	344	958

Table III.—Showing the age and sex of the persons, whose deaths from Pulmonary Tuberculosis were notified during the year ended 31st December, 1940.

Age Period.	Metropolitan Combined Sanitary District Mean Population : 1,384,520.			Hunter River Combined Sanitary District. Mean Population : 225,700.			Broken Hill Combined Sanitary District. Mean Population : 28,090.			Remainder of State. Mean Population : 1,135,031.			Whole State. Mean Population : 2,773,341.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Under 1 year	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1– 4 years	3	...	3	...	...	...	...	...	...	...	1	1	3	1	4
5–14 ,,	1	...	1	...	...	...	...	...	...	2	1	3	3	1	4
15–24 ,,	21	32	53	2	6	8	1	...	1	8	10	18	32	48	80
25–34 ,,	36	68	104	2	3	5	...	...	...	14	27	41	52	98	150
35–44 ,,	65	42	107	7	3	10	1	...	1	31	17	48	104	62	166
45–54 ,,	115	21	136	8	3	11	...	1	1	35	11	46	158	36	194
55–64 ,,	87	20	107	12	7	19	2	...	2	37	12	49	138	39	177
65 and over	59	12	71	6	1	7	...	...	...	23	16	39	88	29	117
All ages	387	195	582	37	23	60	4	1	5	150	95	245	578	314	892

Table IV.—Showing Institutional Accommodation available for patients suffering from Pulmonary Tuberculosis.

Sanatoria and Hospitals.	Type of Cases Received.	Number of Beds.		
		Male.	Female.	Total.
1. Waterfall Sanatorium (under Government control)	Intermediate	292	136	428
2. Randwick Auxiliary Hospital (under Government control)	Late	90	61	151
3. Queen Victoria Homes (subsidised)—				
Thirlmere	Early female	...	54	54
Wentworth Falls	Early male	54	...	54
4. Red Cross Society (subsidised)—				
"Bodington" at Wentworth Falls	Early male and female	89	9	98
"Malahide" at Pennant Hills	Late male and female	15	6	21
R. T. Hall Sanatorium		8	8	16
Private Hospitals (approximately)		...	...	60
Repatriation Department—				
Prince of Wales Hospital		65	...	65
Lady Davidson Home		77	...	77
				1,024

Table V.—Showing number of patients receiving Institutional treatment during 1940.

	Queen Victoria Sanatorium, Wentworth Falls.	Queen Victoria Sanatorium, Thirlmere.	Red Cross Sanatorium, Wentworth Falls.	Waterfall Sanatorium.	Red Cross Hospital, Pennant Hills.	Auxiliary Hospital, Randwick.	R. T. Hall Sanatorium.
1. Number of patients in Institution on 1st January, 1940	46	56	77	409	19	150	12
2. Number of patients admitted during 1940	83	87	121	429	31	257	16
3. Number of patients discharged (including deaths) during 1940	77	93	114	447	28	256	13
4. Number of patients remaining in Institution on 31st December, 1940	52	50	84	391	22	151	15
5. Average daily number of beds occupied	50·12	52·9	86·5	415·3	21	150	12

TABLE VI.—Showing the average residence in days and condition on discharge from Sanatoria and Hospitals of patients under treatment during 1940.

Condition on Discharge.	Queen Victoria Sanatorium, Wentworth Falls.		Queen Victoria Sanatorium, Thirlmere.		Red Cross Sanatorium, Wentworth Falls.		Waterfall Sanatorium.		Red Cross Hospital, Pennant Hills.		R. T. Hall Sanatorium.		Randwick Auxiliary Hospital.	
	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.	No. of Patients.	Average Residence in Days.
1. Arrested (A.)	...	...	...	...	...	...	2	1,934	...	...	...	...	...	...
2. Quiescent (Q.)	24	261·7	41	261·4	22	388	24	1,789	...	...	4	279	...	...
3. Much Improved (M.I.)	30	283·9	27	270·2	44	341	52	427	5	147	6	458	15	452
4. Improved (I.)	20	201·6	13	167·1	26	251	171	254	3	189	2	354	36	295
5. Stationary (S.)	2	521·0	1	5·0	12	280	76	172	4	106	1	43	29	91
6. Worse (W.)	1	93·0	11	222·7	9	256	46	252	2	100	...	...	13	360
7. Dead (D.)	...	...	...	...	1	4	76	397	14	64	...	...	157	144
Total	77	...	93	...	114	...	447*	...	28	...	13	...	250	...

* Including 7 cases diagnosed as non-tuberculous.

TABLE VII.—Showing condition of patients on admission to, and discharge from, Institutions for the treatment of of Pulmonary Tuberculosis during 1940.

Condition on Admission.	Queen Victoria Sanatorium, Wentworth Falls.							
	Condition on Discharge.							
	A.	Q.	M.I.	I.	S.	W.	D.	Total.
L1T1	...	8	4	2	1	...	...	15
L2T1	...	11	19	9	1	...	...	40
L1T2	...	...	...	3	...	...	...	3
L2T2	...	5	7	5	...	1	...	18
L3T1	...	...	...	...	...	...	...	...
L3T2	...	...	...	1	...	...	...	1
L1T3	...	...	...	...	...	...	...	...
L2T3	...	...	...	...	...	...	...	...
L3T3	...	...	...	...	...	...	...	...
	...	24	30	20	2	1	...	77

Condition on Admission.	Queen Victoria Sanatorium, Thirlmere.							
	Condition on Discharge.							
	A.	Q.	M.I.	I.	S.	W.	D.	Total.
L1T1	...	31	12	6	...	1	...	50
L2T1	...	5	10	2	...	1	...	18
L1T2	...	5	1	2	1	1	...	10
L2T2	...	...	4	2	...	6	...	12
L3T1	...	...	...	...	...	...	...	...
L3T2	...	...	...	1	...	...	...	1
L1T3	...	...	...	...	...	...	...	...
L2T3	...	...	...	...	...	1	...	1
L3T3	...	...	...	...	...	1	...	1
	...	41	27	13	1	11	...	93

Condition on Admission.	Red Cross Sanatorium, Wentworth Falls.							
	Condition on Discharge.							
	A.	Q.	M.I.	I.	S.	W.	D.	Total.
L1T1	...	10	11	5	...	...	...	26
L2T1	...	6	13	5	1	...	...	25
L1T2	...	...	2	2	...	...	...	4
L2T2	...	...	5	3	...	1	...	9
L3T1	...	4	9	4	2	1	...	20
L3T2	...	2	3	4	7	4	...	20
L1T3	...	...	...	1	...	...	...	1
L2T3	...	...	1	...	...	1	...	2
L3T3	...	...	...	2	2	2	1	7
	...	22	44	26	12	9	1	114

Condition on Admission.	Waterfall Sanatorium.							
	Condition on Discharge.							
	A.	Q.	M.I.	I.	S.	W.	D.	Total.
L1T1	1	14	5	15	...	...	...	35
L2T1	1	7	8	21	...	...	1	38
L1T2	...	...	20	49	43	3	1	116
L2T2	...	...	1	2	6	5	4	18
L3T1	...	3	5	9	2	6	5	30
L3T2	...	...	9	71	8	17	36	141
L1T3	...	...	...	...	...	...	...	...
L2T3	...	...	...	...	...	...	...	...
L3T3	...	...	1	2	16	14	29	62
	2	24	49	169	75	45	76	440*

Condition on Admission.	Red Cross. Hospital, Pennant Hills.							
	Condition on Discharge.							
	A.	Q.	M.I.	I.	S.	W.	D.	Total.
L1T1	...	...	...	...	...	...	...	...
L2T1	...	...	2	...	...	...	...	2
L1T2	...	...	...	...	...	...	...	...
L2T2	...	...	1	...	1	...	...	2
L3T1	...	...	...	...	...	...	...	...
L3T2	...	...	2	...	1	...	...	3
L1T3	...	...	...	...	...	...	...	...
L2T3	...	...	...	...	...	...	...	...
L3T3	...	...	...	2	3	2	14	21
	...	...	5	2	5	2	14	28

Condition on Admission.	R. T. Hall Sanatorium.								Randwick Auxiliary Hospital.							
	Condition on Discharge.								Condition on Discharge.							
	A.	Q.	M.I.	I.	S.	W.	D.	Total.	A.	Q.	M.I.	I.	S.	W.	D.	Total.
L1T1	...	4	3	...	...	...	...	7	...	...	...	...	...	...	...	...
L2T1	...	...	...	...	1	...	...	1	...	...	...	1	...	...	...	1
L1T2	...	...	1	1	...	...	...	2	...	...	...	...	...	...	...	...
L2T2	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2
L3T1	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	3
L3T2	...	...	...	...	...	...	...	...	...	...	8	16	15	6	13	58
L1T3	...	...	3	...	...	...	...	3	...	...	...	...	...	...	...	...
L2T3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
L3T3	...	...	...	...	...	...	...	...	...	...	6	17	12	7	144	186
	...	4	7	1	1	...	...	13	...	...	15	36	29	13	157	250

* Excluding 7 cases as per Table 6.

TABLE VIII.—Comparative statement of work carried out by the Anti-Tuberculosis Clinics during period twelve months, 1/7/1939 to 30/6/1940.

Particulars.	Royal Prince Alfred Hospital.	Royal North Shore Hospital.	Anti-Tuberculosis Association of N.S.W.	Newcastle Hospital.	Canterbury District Memorial Hospital.	Manly District Hospital.	Sydney Hospital.
1. Total number of attendances (including contacts) ...	9,610	3,158	5,673	4,965	1,356	1,055	2,400
2. Number of new patients examined during the year (excluding contacts)—							
(a) Definitely tuberculous	192	110	132	56	32	28	168
(b) Non-tuberculous	226	156	804	110	89	146	303
(c) Diagnosis not completed	...	5	76	10	1	...	...
3. Number of contacts examined—							
(a) Definitely tuberculous	246	2	67	9	12	16	8
(b) Non-tuberculous	459	287	1,135	116	292	269	429
(c) Diagnoses not completed	...	...	64	55	7	...	...
4. Total number of nurses, visits during year	2,548	3,786	2,866	343	577	560	890
5. Number of homes visited	1,812	1,067	1,145	114	426	280	330
6. Number of sputum examinations	549	251	848	118	98	78	322
7. Number of X-ray examinations—							
(a) New cases	1,123	221		176	107	174	471
(b) Cases previously X-rayed at the Clinic	1,749	621	2,251	374	207	60	582
(c) Contacts	705	255		170		285	437
8. Number of cases on Clinic Register to 30th June, 1939	3,252	3,168	1,456	949	122	58	1,103

SECTION I.

E—INDUSTRIAL HYGIENE.

Report of the Medical Officer of Industrial Hygiene for the Year Ended 31st December, 1940.

Staff.

Medical Officer of Industrial Hygiene: Charles Badham, B.Sc., M.B., Ch.M., D.P.H.

Assistant Medical Officer: Gordon C. Smith, M.B., B.S.

Physicist Assistant: H. E. G. Rayner, B.Sc.

Chemist Assistant: A. M. Willison, M.Sc.

Engineer Assistant: H. M. Whaite, B.E.

Laboratory Assistant: A. J. Gavriloff.

This division undertakes the investigation of hazards to health in factories, mines and industry generally, and the diagnosis of cases of occupational disease.

Co-operation With Commonwealth Department of Health re Health of Munition Workers.

In August, 1940, an Advisory Committee was set up by the Commonwealth Government in respect of the health and welfare of munition workers and of the hygiene of munition establishments. At the request of the Federal Director-General of Health, the services of the Medical Officer of Industrial Hygiene, Dr. C. Badham, were made available as a member of this committee.

Monthly meetings have been held in Melbourne for consultation and discussion of the various problems met with during inspections of annexes, and technical training schools for munition workers.

In addition to attending the committee meetings, Dr. Badham has inspected in New South Wales nine training schools for munition workers, and five munition annexes. In each case a report dealing with the working conditions and hygiene, and including recommendations, has been made to the chairman of the Advisory Committee.

Efforts are being made to formulate standards with respect to heating and ventilation, lighting, welfare accommodation and hours of work, and to reduce the accident rate and other risks to health from dangerous processes.

Dust Diseases of the Lungs.

The work of the Medical Officer of Industrial Hygiene on the investigation of dust diseases and on the special Pneumoconiosis Board of the Workers' Compensation Commission has continued.

A statement was prepared for the Royal Commission inquiring into the question of compulsory retirement at the age of 60 years of employees in coal and oil shale mines in New South Wales.

Dust Sampling in Railway Tunnels Under Construction.

At the request of the Secretary for Railways, exhaustive tests were made on several occasions of the dust hazard in railway tunnels under construction at Hawkesbury and on the new Sandy Hollow-Maryvale line.

In both workings the dust exposure was found to be excessive, necessitating improvement of the conditions, and further inspections were made.

Asbestos.

At the request of the Department of Labour and Industry, an investigation was made of the dust hazard at a factory manufacturing asbestos rope.

The air of the factory was vitiated by asbestos dust which was evolved mainly from the willowing and tearing machine, and from the carding machine. Other machines in the factory caused some dust but the amount was much less than from the two above-mentioned machines.

Dust sampling by means of the Owens' Jet Dust Counter showed that the exposure was up to 560 particles per cc. in the air of the work-room.

It was recommended that the willowing-tearing machine and the carding machine be fitted with suitable exhaust ventilation to keep the dust concentration within safe limits.

Diatomaceous Earth.

At the request of the Department of Labour and Industry, three factories making "Tripoli" polisher for brass and nickel fittings were inspected.

It was recommended that the manipulation or weighing of free silica in the form of powdered quartz, diatomaceous earth or any powder containing a high percentage of free silica, be permitted by the Department of Labour and Industry only on the installation of exhaust ventilation, and constant use of same when the process is in operation.

Dust in Foundries.

At the request of the Silicosis Committee, an investigation was made of the dust hazard at two iron foundries and one ore-milling plant.

Tests taken in one foundry showed that—

(*a*) During the use of carborundum dressing wheels, the dust concentration at breathing level was found to be from 600-2,400 particles per cc. This dust appeared to be mainly iron oxide, some carborundum and a little quartz;

(*b*) during the brushing out of the baths, the men were exposed to a dust concentration of from 800-2,300 particles per cc. This dust appeared to be mainly silicate, probably from the material used for facing the moulds;

(*c*) in the sand-room, the men were exposed to from 700-900 particles per cc. The particles were very small and their nature could not be determined;

(*d*) the general factory air had 238 particles per cc., mostly small (0.5 microns) some of which were smoke.

Dust From Abrasive Wheel Dressing.

An investigation was made of the dust exposure of men engaged dressing carborundum and emery wheels in a local factory.

At the time of inspection only one dressing wheel was in operation, whereas usually four were in operation.

Slides taken by Owens' dust counter at breathing level whilst emery wheels were being dressed varied from 357 to 1,220 particles per cc., and when dressing carborundum wheels, from 1,134 to 1,430 particles per cc. The dust concentration of the general room air varied from 626 to 1,000 particles per cc.

The wheels were dressed under exhaust hoods, but these were inefficient.

It was considered that the employees were unduly exposed to dust.

The factory in question has since moved to a new building and has installed efficient exhausts to the dressing wheels.

Manufacture of Steel Wool.

At the request of the Department of Labour and Industry, an investigation was made of the possible dust hazard during the manufacture of steel wool.

The dust consisted of steel particles about 1 micron in size, but the concentration was below 100 particles per cc. (Owens'). Larger particles settled on rafters, etc.

It was not considered that there was any marked hazard in this industry.

Dust Hazards at Pipe Works.

At the request of the Industrial Commission, a report was furnished on the working conditions at the galvanizing plant, blower box, zinc dross house, zinc packing house, shot blast and sand blast of a pipe works.

Lead Poisoning.

One hundred and sixty-seven individuals, suspected of having lead poisoning, were examined by this division; of these, forty-seven were diagnosed as having lead poisoning with disability, and the remaining one hundred and twenty as having no disability or not being lead poisoned. The industries which furnished cases of lead poisoning were as follows: Painting Industry (17); Manufacture of Accumulator Batteries (13); Glass Industry (8); Lead Smelting (4); Printing, Plumbing, Sheet Metal Work, Ship-breaking, Pipe-laying (1 each).

The examination of blood smears submitted by medical officers in charge of six factories engaged in the manufacture of accumulator batteries and battery parts, one factory engaged vitreous enamelling, one lead-smelting firm and a glass works has been continued, and during 1939 1,328 slides and in 1940 2,597 slides were reported on.

Glass Works.

An interesting outbreak of lead poisoning occurred in a glass factory. The process consisted in powdering a ground glass preparation ("glister") on wet lacquer painted on drinking glasses and jugs to produce frosting after firing. It was stated by the management that they were unaware that this glister contained 50 per cent. of soluble lead, and certainly a number of the girls who attended hospitals were unaware that they worked in lead. Of a staff of fifty girls, eight were operated on for appendicitis in leading public hospitals, but the investigation of the blood of a ninth case by a women's hospital caused a diagnosis of lead poisoning and this investigation.

The average haemoglobin value of forty-eight girls employed on various jobs in the glister department was 76 per cent. (i.e., 10 g. of oxy-haemoglobin per 100cc. of blood) compared with an average value of 89 per cent. for girls employed in other departments. Nine girls had haemoglobin values of less than 65 per cent., with an average stippled cell count of 7,400 per million red cells.

This outbreak of lead poisoning led to the drafting of a blanket regulation covering lead processes.

Wire-braiding.—At the request of the Industrial Commission, an investigation was made of the cable braiding process at a factory to determine whether there was a risk of lead poisoning amongst the female and juvenile labour employed. The process consists of plaiting braid coated with red lead compounded with linseed oil about copper wire; the process is entirely mechanical, the girls controlling the machines and repairing breaks in the threads.

The opinion was formed that the girls employed in the braiding section were not exposed to an intake of lead from the process, but that there was a general intake of lead in the factory workers which depends on some local condition, probably related to ore smelting operations in the vicinity.

Sheet Lead Workers.—At the request of the Industrial Commission, an inspection was made of three firms engaged in the rolling of sheet lead and the extrusion of lead pipes and tubes.

An examination was made of the blood of the individuals engaged in the factories to determine the haemoglobin and number of stippled cells.

From the examination of the blood and inspection of the premises, the opinion was formed that lead poisoning could arise from these processes, and it was suggested that, if the regulations governing lead processes were enforced in these industries, the probability of lead poisoning would be prevented.

Wharf Labourers Loading Concentrates.—At the request of the Chairman, Board of Reference, Commonwealth Arbitration Court, an investigation was made of the possibility of lead or other metal poisoning of wharf labourers loading lead or zinc concentrates, and copper, zinc and arsenic sulphides.

Blood films did not show any evidence of lead poisoning and dust sampling with a Greenburg-Smith Impinger Apparatus showed that the dust concentration was within reasonable limits and not likely to cause pneumoconiosis.

Teachers of Plumbing.—At the request of the Director, East Sydney Technical College, an examination was carried out on the possibility of lead poisoning amongst the teachers of plumbing.

Nine individuals were examined but none showed any evidence of lead poisoning.

Arsenical Poisoning.

An individual who had been employed for three months mixing and packing sheep-dip containing white arsenic and caustic soda, was seen by this Division one year after leaving work. (He had been receiving compensation for eight months.) He complained at the time of examination of severe pains in the chest and face, aches in the knees, weakness, loss of appetite and constipation. He stated that, on leaving work, he suffered from dermatitis, facial neuralgia, vomiting and constipation. His arsenic excretion, twelve months after leaving work, was 0.08 mg. per litre of urine and 0.50 mg. per 100 g. of hair.

An individual employed treating timber with white arsenic to rid it of termites complained of severe pains in the stomach and diarrhoea, "pins and needles" in right hand, and general feeling of weakness. His arsenic excretion was 0.24 mg. per litre of urine and 0.48 mg. per 100 g. of hair.

A man engaged spraying weeds with an arsenical solution developed a sore throat and tongue, neuritis of elbow, numbness of right leg and indigestion. There was no rash. Two months later the arsenic in hair was 2.0 mg. per 100 g. of hair.

Selenium.

Two individuals who worked in a silver mill where selenium compounds were formed during the smelting, were examined for the possibility of selenium poisoning.

One, a young man, complained of lassitude, nervousness, amnesia, pains in stomach and constipation, nausea, soreness of eyes. His breath had a pronounced garlic-like odour. A blood count showed a slight diminution of the haemoglobin and a slight leucopenia. Urine examination did not disclose selenium. It was considered that his complaints were due to selenium ingestion.

The other, an elderly man, had arterio-sclerosis and congestive heart failure, mask-like face and tremor. His condition was considered to be mainly degenerative and not due to selenium.

Possibility of Exposure to Carbon Monoxide from Flueless Gas Coppers.

At the request of the Australian Gas Light Company, who desired an independent opinion, an investigation was made as to whether any danger would arise from carbon monoxide if gas coppers were installed without flues.

A number of these flueless gas coppers had already been installed and tests were made in selected laundries, especially those where the permanent ventilation was least. In each of the laundries examined, venturi types of burner and 10 or 12 gallon coppers, with flue terminals on spigot of copper, were in use and, therefore, the results obtained and the conclusions drawn from these tests refer only to this type of copper.

The gas consumption of these coppers varied from 51-65.5 cu. ft. per hour, but in only one case out of five did it exceed 55 cu. ft. per hour.

All tests were made with the window and door of the laundry closed. A small amount of ventilation was available under, and in some cases over, the door. Small grid ventilators (air bricks) were usually provided along a wall. Under normal conditions one would expect either a window or a door or both to be kept open, but the above conditions were selected to represent the worst that might exist. It was demonstrated that with the window or door partly open the air-change was markedly increased owing to the temperature difference. Consequently with improved ventilation the carbon monoxide concentration in the atmosphere of the laundry would be lower than that under the conditions of the tests.

Under the conditions of the tests the air-change calculated from carbon dioxide readings varied from twenty-two times per hour (6,250 cu. ft. per hour) to eight changes per hour (2,400 cu. ft. per hour).

As it takes approximately 45 minutes to boil the water, the exposure to carbon monoxide would not as a rule exceed one hour and would rarely be continuous. For one hour's continuous exposure there would be no danger to health unless the carbon monoxide exceeded six parts per 10,000 and four parts for one and a half hours' exposure; and with these concentrations life would not be endangered until the exposure was two and a half times longer.

The tests conducted have shown that carbon monoxide is present in the flue gases but the maximum concentration found in the air of the laundry, viz., 3.6 parts per 10,000, would not be sufficient to cause any ill-effects until there was a continuous exposure of one and a half to two hours and would not be dangerous to life under five hours. The concentration of 3.6 parts per 10,000 was reached after about twenty-three minutes and then slowly decreased. In every case it was found that the carbon monoxide concentration increased to a maximum and then decreased, due to the fact that carbon monoxide is chiefly produced in the early stages, that is when the copper is cold. With one exception, referred to above, the concentrations were such that the conditions were considered free from danger from carbon monoxide even for ten hours' continuous exposure.

Whilst the tests were being carried out, operatives reported that there was marked discomfort from the high temperatures and humidities, but no other ill-effects were noted. Owing to the high temperatures and humidities, it is not likely that any one would, in our climate, attempt to work without opening either the window or the door.

Carbon monoxide is present in the flue gases, being greatest shortly after lighting the gas and decreasing as the temperature of the metal surface increases. Similar results have been reported in the literature. The highest concentration of carbon monoxide in the flue gas was observed in the copper consuming 20 per cent. more gas than the others, i.e., in the washhouse where the atmospheric carbon monoxide reached 3.6 parts per 10,000. The concentration eighty seconds after lighting the gas was 24.6 parts per 10,000; at six minutes it had fallen to 7.8 parts per 10,000 and at thirty-four minutes to 3.4 parts per 10,000. In the other tests lower concentrations of carbon monoxide in the flue gases were found.

The following conclusions were reached:—

With restricted ventilation, that is with the door and window closed and not more than a total of 40 sq. ins. accidental ventilation under and above the door, the *maxi-*

mum concentration of carbon monoxide in the air of the laundries was not sufficient to *endanger life* unless there was a continuous exposure to this concentration for *five hours.* The average concentration would be much lower than the maximum and, therefore, the time of continuous exposure required to endanger life would probably be doubled. In four out of five tests it is considered that there is no danger from carbon monoxide poisoning.

If appliances are of equal standard to those on which the tests were carried out, it is considered that no danger to health will result if satisfactory permanent ventilation is provided.

Dermatitis.

There was an outbreak of dermatitis amongst wharf labourers loading bag-wheat. Mites were found on the bodies of several wharf labourers and were identified as *Lyponyssus bacoti*—a common rat or mouse mite. The outbreak of dermatitis was evidently due to infected mice amongst the wheat from country districts. Two wharf labourers loading bag-wheat developed rashes of the wrists due to fungus infection. It was not found possible to associate this ringworm with the mouse infestation of the wheat.

There was an outbreak of dermatitis amongst the packers of a certain factory. It was stated that all the personnel of this department were affected: Three men seen had rashes. It was found that the straw used had the wheat heads in it and two types of mites were found in this straw—*Tyroglyphus minor* and a pediculoides type normally parasitic on moth. Moth eggs were seen amongst the straw. It was advised that the wheaten straw be replaced by straw without the heads of wheat.

Following a complaint of dermatitis of the face, arms and legs of certain individuals employed laying cable coated with a fire and vermin resistant braiding, the composition of this braiding was determined and found to contain trichloronaphthalene. It was considered that this substance was the cause of the dermatitis.

Two film developers suffering from dermatitis were seen. The first had a papulo-follicular rash of the right forearm, right buttock, both thighs and the insteps of both feet. The other had a few vesicles of the dorso-lateral eminence and the inter-digital spaces of the ring and middle fingers of each hand, also large scaly areas of the dorsum of both feet.

An individual employed in chromium plating developed a giant urticaria of the eye-lids, forehead and scalp, and also of the shoulders. He also had chrome holes in both hands and sores in the septum. His condition was considered due to his occupation.

Following a complaint of dermatitis among employees using a stereo-backing paste, an investigation was made of a newspaper office. There was only one definite case of dermatitis and this was probably due to potassium dichromate in the stereo-backing paste.

There was a severe outbreak of dermatitis in a factory where a large amount of oil was used for cutting. The cutting oils used were of various types; but one, containing potassium dichromate (two parts in 10,000), was considered the most probable cause of the trouble. The outbreak occurred about six weeks after the introduction of this oil and subsided somewhat after its use had been discontinued. As the dermatitis outbreak occurred in January, it is possible that the hot and humid weather then prevalent was partly responsible for some of the cases.

The use of bichromate of potash in cutting oils and fluids is destined to lead to much dermatitis. I understand that some oil companies have abandoned its use, following complaints of dermatitis. Certainly no more potential agent for causing dermatitis could have been selected. The use of bichromate in cutting fluids is to prevent staining of metals by oxidation.

Ventilation.

At the request of the Chief Secretary's Department and the City of Sydney Municipal Council, following complaints of poor ventilation, investigations have been made of a large number of city, suburban and country theatres and public halls, and reports submitted thereon.

At the request of the Comptroller-General of Prisons an investigation was made of the ventilation of the cells at two prisons.

Of Long Bay Gaol it was reported the air in the cells was stuffy and objectionable owing to body odours and this was due to inadequate ventilation. The clothing and blankets were of a reasonable degree of cleanliness and did not account for the unpleasant atmosphere.

In winter in the absence of any heating system it will be difficult to get health and comfort along with better ventilation which is required to remove the objectionable odours.

In summer the ventilation will be markedly inadequate as there should be provided at least 30 cubic feet per person per minute, and this will seldom be found.

It is essential if the ventilation of the average cell is to be improved to provide some system of cross ventilation, that is, an outlet and inlet for the air. The present inlet would serve if the iron cell door were provided with louvres top and bottom; giving an area of at least 200 square inches, but grilled doors might be required in summer, and in winter the louvres might have to be covered.

Of Parramatta Gaol it was reported Cell No. 8, which had been fitted with a louvre, 13 inches by 7 inches, in the cell door near the floor level, had an air supply of 29 cubic feet per minute, and the temperature of the cell was 7 degrees above the outside temperature; at this outside temperature this is reasonable ventilation and it may be compared with an unlouvred Cell No. 12; here the air supply was but 18.8 cubic feet per minute, and the rise in temperature was 10.5 degrees.

SECTION II.

MEDICAL OFFICERS OF HEALTH.

METROPOLITAN COMBINED SANITARY DISTRICT, SYDNEY.

Report of the Medical Officer of Health for the Year 1940.

J. Grahame Drew, M.A., M.B., B.Ch. (Camb.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), D.P.H., D.T.M., D.T.H. (Syd.), F.R. San. I.

The year has been marked by a very definite fall in the incidence of diphtheria in the metropolitan area, and it would appear from an analysis of the figures, together with those obtained during my period of duty as State Health Officer in Queensland, that the influence of immunization is now being felt. Altogether, 1,004 cases were reported with thirty-three deaths, whereas the average for the years 1935-1937 was 2,700 cases with one hundred deaths. Every municipality in the metropolitan area has conducted several campaigns and will continue so to do. In all, 104,381 have been immunized officially since the end of 1936. Practically in every one of these municipalities definite reductions have been obtained. Outstanding are the following municipalities:—

Municipality.	Number of children immunized.	1935-37.		Average.	1940.	
		Cases.	eaths.		Cases.	Deaths.
Canterbury ...	9,221	137	5	...	32	1
Waverley	5,340	70	1·7	...	27	4
Randwick	4,637	144	3·7	...	92	...
North Sydney	4,126	114	3·7	...	11	...
Ryde	3,778	90	5	...	12	1
City of Sydney	3,758	200	7	...	78	3

Investigation into a number of immunized children who were notified as cases of diphtheria has revealed that quite a large percentage of these could definitely be classified as cases of streptococcal sore throat while carrying diphtheria germs and which were generally avirulent. Arrangements have now been made with the hospitals receiving diphtheria cases to have every immunized child carefully investigated as to the virulency of the organisms morphologically akin to diphtheria germs grown from the swab. Such being the success of the campaign, councils are urged to redouble their efforts so that in time the disease, if not fully eradicated, may be reduced to the irreducible minimum in the metropolitan area.

Cerebro-Spinal Fever.—There has been a tendency towards an increase in the number of cases reported in 1940. During the year twenty-five cases with five deaths were reported (twelve).*

As several military camps are situated in or about the metropolitan area, every reported case was carefully investigated by officers of the division, with special reference to contact with military personnel and the information expeditiously forwarded to the military authorities.

Scarlet Fever.—Shows a reduction of 336 cases with a total of 1,694 and three deaths. (2,030 cases and four deaths).*

Typhoid Fever.—Twenty-six cases and two deaths (twenty-nine cases and seven deaths).*

Infantile Paralysis.—Five cases. (Seventeen cases and two deaths).*

Encephalitis Lethargica.—Two cases (two cases).*

* Figures in brackets are for the year 1939.

Non-notifiable Infectious Diseases.—1940 has been marked by the occurrence of many cases of whooping cough, measles, mumps, German measles and chickenpox. Quite a number of adults were attacked.

Health and Factories.—With the increase in the tempo of manufacture of munitions of war and allied substances many complaints have been received from private individuals regarding noise, effluents (gaseous and liquid), and smoke and smuts. These were all carefully investigated and improvements made. The problem is a difficult one and councils are advised in the future to consider with the utmost care the siting of new factories with special regard to the proximity of private homes and discharge of drainage. The problem is also accentuated by the fact in many instances that there is no clearly defined division between factory and residential areas, the erection of houses having followed that of the factories.

In connection with the discharge of trade fluid wastes close co-operation has been maintained with the Maritime Services Board in an endeavour to prevent the pollution of the waters of the harbour. Noise has been overcome in many instances by enclosing with sound-proof walls that portion of the factory producing the noise.

Garbage Collection.—This is still most unsatisfactory in the metropolitan area. Councils were previously urged to install modern garbage collection vehicles, but doubtless owing to war conditions this may now prove difficult. Nevertheless, much can be done to prevent the distribution of the contents of the present vehicles over the roadway by means of greater attention on the part of the employees to the covering of the open carts by means of tarpaulins, only leaving a small portion open for the reception of the garbage during collection.

Incinerators.—I have always stressed the importance of the zoning of incinerators by groups of councils. The recent agreement between the municipalities of North Sydney and Lane Cove with the possible addition of others in the vicinity is a step in the right direction. I still hope, however, that it may be possible to erect plants for the destruction of garbage by means of bacterial action with the ultimate formation of fertilizer.

Poultry and Dogs.—A considerable number of complaints have been received this year from private individuals regarding the proximity of poultry with their attendant smells and noises, and also dogs kept in restricted areas with attendant disturbance of sleep due to barking. I am definitely of the opinion that poultry should not be kept in the metropolitan area in small backyards. Unless the birds can be moved to fresh areas from time to time and thus allow a rest period to occur for the already used ground, the location is not suitable for the maintenance of the birds in a healthy condition either for themselves or the surrounding ratepayers. Rats are also attracted where unhealthy conditions prevail. In closely-settled areas, I would recommend that councils should increase the approved distance set out in ordinance 39, Local Government Act, 1919, under which poultry shall not be kept nearer than a distance of fifteen feet from any dwelling-house to at least fifty feet.

Mosquitoes.—Mosquitoes are still prevalent in Sydney. The Department of Agriculture has undertaken alterations in the Botanic Gardens stream which will be of advantage, but much requires still to be done there. The city council has undertaken to oil certain gully-traps in the municipality. Householders can also play their part by eliminating pools of stagnant water on their premises.

Oysters.—Close co-operation has been maintained with the Division of Fisheries. Surveys have been made of certain portions of the George's River and the harbour, with the result that leases in the George's River have been terminated. Blackwattle Bay and Shea's Creek have been closed for fishing and prawning, whereas certain portions of Middle Harbour have now been recommended to be opened for oyster culture.

Beach Pollution.—Complaints have been received from bathers regarding the deposition of fatty substances on the beaches of Maroubra and Malabar. These substances doubtless come from the sewer discharging at Long Bay. The fat content of this sewage has been shown to contain twice as much as that of any other sewage reaching the ocean. Much could be done to eliminate these unpleasant conditions by decreasing the fat content of effluents coming from factories discharging fatty effluents. In Botany Bay the situation regarding the discharge of trade wastes into the waters there is unsatisfactory, and will require to be carefully considered generally at the first opportunity.

Swimming Baths.—The metropolitan swimming baths are regularly inspected and samples of water are taken for analytical investigation. The standard on the whole is satisfactory.

Health Education.—The metropolitan health inspectors have been called together from time to time for lectures associated with advances in public health. Included in the syllabus were "The Protection of Foodstuffs against Poison Gas," and "The Control of Cerebro-Spinal Meningitis." A number of lectures have also been given to voluntary aid detachments on First Aid and Home Nursing.

Health Week.—A very successful Health Week was held in 1940 with the motto, "Fitness Wins."

HUNTER RIVER COMBINED SANITARY DISTRICT.

Report of the Medical Officer of Health for the year ended 31st December, 1940.

Staff.—Dr. J. R. Shannon, Medical Officer of Health; 1 Senior Health Inspector; 1 Supervisory Nurse; 1 Temporary Office Assistant.

Population.—The population of the district at the Census of 30th June, 1933, was 209,465. The estimated population at the 31st December, 1940, was 227,090, and the estimated mean population for 1940 was 225,700.

Births.—There were 3,820 live births to mothers resident in the district, equivalent to a rate of 16.93 per 1,000 of mean population. Of these, 1,960 were males and 1,860 females.

Ex-nuptial Births.—These numbered 118, equivalent to a rate of .52 per 1,000 of mean population. The ex-nuptial live births represented 3.09 per cent. of the total live births.

Deaths.—The deaths of residents numbered 2,112, equivalent to a rate of 9.36 per 1,000 of mean population. Of these 1,175 were males and 937 females.

Infantile Mortality.—Deaths under one year of age numbered 148, equal to a rate of 38.74 per 1,000 live births.

Stillbirths.—There were 109 stillbirths to mothers resident in the district, equal to a rate of .48 per 1,000 of mean population and representing 2.77 per cent. of all births (live and still).

Diphtheria.—One hundred and sixty-six cases (eight deaths) were notified in 1940, compared with 336 cases in 1939 and an annual average of 341 for the previous five years.

Scarlet Fever.—Two hundred and sixty-six cases (two deaths) were notified in 1940, compared with 407 in 1939 and an annual average of 197 for the previous five years.

Typhoid Fever.—Nine cases (one death) were notified in 1940, compared with ten cases in 1939 and an annual average of ten for the previous five years.

Infantile Paralysis.—Two cases (no deaths) were notified in 1940, compared with four cases in 1939 and an annual average of twenty-three for the previous five years.

Encephalitis Lethargica.—No cases were notified in 1940, compared with two cases notified in 1939.

Puerperal Pyrexia.—Eight cases (five deaths) were notified in 1940, compared with three cases in 1939 and an annual average of ten cases for the previous five years.

Cerebro-Spinal Meningitis.—Four cases (no deaths) were notified in 1940, compared with five cases in 1939.

Pulmonary Tuberculosis.—One hundred and twenty-three cases were notified in 1940, compared with 122 cases in 1939.

There were 4,157 attendances at Newcastle Hospital Anti-Tuberculosis Dispensary during 1940. Patients attending numbered 846, of whom 346 were new cases.

Artificial Pneumothorax treatment was effected on seventeen patients.

Homes visited numbered ninety. In all, 114 home visits were made by the Supervisory Nurse.

Venereal Diseases.—Five males were notified as having defaulted from treatment. Two males were prosecuted under Section 5, Venereal Diseases Act, one being fined £10 with 8s. costs, the other £20 and 8s. costs.

Private Hospitals.—Number registered in Hunter River Combined Sanitary Districts in 1940 totalled forty-nine, housing a total of 279 beds. During 1940 two private hospitals were closed and one new licence issued.

Inspections of private hospitals during the year totalled 127.

Registered Midwifery Nurses.—Number registered in 1940 totalled 187. The Supervisory Nurse made a total of 210 visits of inspection.

The expansion of defence activities in 1940 had its effect on the work of the Newcastle office. Officers co-operated with the Defence Department in solving problems concerning water supplies, sanitation and drainage of military and air stations.

The sewering of a large military camp in the Greta area was completed, an Imhoff system of treatment being installed. Provision for chlorination of effluent was made.

There was no large outbreak of any notifiable infectious disease during 1940.

Mosquito eradication work was continued. Gambusia affinis, the larva-eating fish, was liberated in new areas. In the Greater City area a survey was made regarding filling required for certain swamp lands. The work of oiling of street sumps, using a motor-cycle and side-car unit, was continued with success.

The plans of the proposed Maitland abattoirs were submitted to the Newcastle office on 14th February, 1940. Qualified approval was recommended. The Board of Health gave temporary approval to the plans on 3rd October, 1940, subject to the fulfilment of certain conditions. Kearsley Shire declined to approve of the plans.

Diphtheria Immunisation, 1940.—

Local Authority.	Applications Received.	Commenced Treatment.	No. Completing Course.
Greater Newcastle	1,076	805	685
Cessnock	736	610	546
East Maitland	92	90	89
West Maitland	293	225	204
Morpeth	No Immunisation done.		
Singleton	,,	,,	,,
Shires of—			
Bolwarra	,,	,,	,,
Kearsley	520	430	393
Lake Macquarie	No Immunisation done.		
Port Stephens	,,	,,	,,
Tarro	131	106	106
	2,848	2,266	2,023

The above table indicates the general apathy towards immunisation. In each year some 3,500 children reach the age of one year in the Hunter Combined District, yet our total immunisation, exclusive of those children immunised privately, totals 2,023.

Greater Newcastle, with a population of some 116,000 persons, has now immunised about 15,000 children, but the number of lives at risk to the disease approximates 36 per cent. or 42,000. The hoped-for day when even half the susceptibles are immunised is yet far distant.

Nightsoil Disposal.—Twenty-six approved depots were in use at the beginning of the year, but two were closed during the year. Approximately 18,000 nightsoil removal services are rendered weekly.

Sewerage installation was completed at Singleton, Maitland and adjoining areas, and a number of premises connected. Sewerage of Kurri, Cardiff, Boolaroo, Toronto and Belmont was commenced, but the work will not be completed until 1941. Extension of sewerage to new subdivisions on the outskirts of Greater Newcastle was completed and survey made of proposed extensions.

For a period of about four months, difficulty was experienced relative to disposal of nightsoil from Rutherford and Greta Military Camps, but was overcome by West Maitland Council being induced to undertake the work.

Cattle Slaughtering—Thirty-one privately-owned slaughter houses functioned throughout the year. Seven are situated in remote parts serving rural settlements. Animals slaughtered at these seven yards are not subject to post mortem examination and the inference to be drawn from comparison of the following table is that a quantity of diseased meat is consumed by the public in the areas those yards serve.

The system of itinerant meat inspection as conducted in the coalfields is conducted efficiently, but as the inspector cannot be on the spot at time of slaughter, there is a possibility of an unscrupulous trader removing the carcase of a diseased animal before the inspector arrives.

Area.	Slaughterings.			Condemnations.			
	Bovines.	Pigs.	Sheep.	Bovines.	Pigs.	Sheep.	Parts.
Kearsley	13,921	4,359	30,893	37	112	9	18,392
Tarro ...	5,428	1,145	13,341	42	7	10	7,499
Bolwarra...	393	32	705	...	Nil	...	...
Lake Macquarie.	505	91	1,170	...	Nil	...	...
Port Stephens.	246	14	205	...	Nil	...	...
Newcastle Abattoirs.	65,354	33,327	168,366	650	518	209	138,710
Total ...	85,847	38,968	214,680	2,4 2	637	238	164,601

The above table shows that while Newcastle Abattoirs slaughter three times the number of bovines slaughtered in the Kearsley-Tarro inspectorial district, total condemnations in the abattoirs amount to approximately thirty times greater. This difference is probably brought about by greater percentage of calf slaughtering and the fact that suspect cattle in this district can only be slaughtered at abattoirs. While this theory may be advanced the considerable variation in the figures does indicate that greater protection is afforded where abattoirs are provided. Comparing Kearsley-Tarro with Bolwarra, Port Stephens and Lake Macquarie, the value of itinerant over no inspection is apparent.

Inspections made from time to time revealed occasional neglect, but conditions existing not such as would warrant legal proceedings. These premises, however, fall far short of the degree of cleanliness that is to be desired at premises used for preparation of food, and can only be maintained at a standard of cleanliness, owing to the nature of the trade and frequently inadequate or badly-designed premises. These conditions indicate that where possible there is need for central slaughtering establishments on a scale commensurate with the area.

Noxious Trades.—Forty-seven pig-keepers, twenty-eight fat extractors, one knacker, two poultry farmers and one rag collector registered under the Noxious Trades Act, 1902, carried on business during the year.

The majority of the premises have been in existence for many years and owing to decay and dilapidation, major improvements from time to time were required. Regulations in relation to pig-keeping, however, fall far short of requirements for maintenance of sanitary conditions and efficient pig-keeping, and only by moral persuasion and convincing the trader that it would be to his monetary advantage, can satisfactory improvements be effected. Fat extracting is principally conducted on slaughtering premises. In this trade, while the plant provided may be in keeping with the regulations, occasionally it is found that the plant is unsuitable for efficient business.

Septic Tanks.—Increased building activity on new unsewered subdivisions in the City of Greater Newcastle and adjacent parts of Lake Macquarie shire created a demand on septic tank installations. Thirty-two applications were dealt with by this office.

Food.—Periodical visits to this district are made by an inspector attached to the Pure Food Branch.

Two hundred and forty articles of food considered unfit for human consumption were seized by the Newcastle staff during the year.

Proclamation of Land as Unfit for Building.—One additional area was proclaimed and survey of two areas completed. The principal areas are situated around the low-lying foreshores of Lake Macquarie which in summer appear dry, whereas during winter they are saturated and contains sheets of water.

Health Week.—Officers of this department were relieved of many of the details of organisation of this campaign, but were actively engaged during the special week. Stress was laid on the value of diptheria immunisation and balanced diet, sanitation and venereal diseases.

The campaign included window displays, lectures and films in schools, lectures at work places, public addresses, radio broadcasts and distribution of 12,500 special booklets.

Prosecutions.—Three prosecutions were taken for failing to maintain premises clean and a total of ten pounds (£10) in fines recovered.

One unlicensed noxious trader was proceeded against and a fine of one pound (£1) recovered.

Two venereal diseases defaulters were proceeded against and fines totalling thirty pounds (£30) were recovered.

One information was laid against a firm for advertising in contravention of the Venereal Diseases Act. A conviction was recorded, but no penalty imposed.

BROKEN HILL SANITARY DISTRICT.

Report of the Medical Officer of Health, W. E. George, M.B., Ch.M., M.R.A.C.P., for the year ended 31st December, 1940.

The population of Broken Hill municipal district at 31st December, 1940, was estimated at 28,804 which represents a decrease of 164 compared with a decrease of 426 inhabitants for the previous twelve months.

The deaths for the period under review numbered 274 (males 167, females 107). There were 653 births for the twelve months comprising 345 males and 308 females.

The incidence of notifiable infectious diseases at Broken Hill during the past five years is shown in the following table:—

Disease.	1936.	1937.	1938.	1939.	1940.
Typhoid and Paratyphoid ...	8	23	6	4 (2 N.I.)	2
Scarlet Fever	13	142	28	21 (1 N.I.)	7
Diphtheria	10	9	79	143 (6 N.I.)	8
Infantile Paralysis	...	...	...	...	...

The low incidence of all notifiable infectious diseases is remarkable, and the total of only seventeen notifications for the twelve months establishes a record. In five of the twelve months there were no notifications.

As mentioned in my previous reports, two campaigns during 1939 against diphtheria met with a good response, and the low incidence of diphtheria is probably attributable to these immunizations.

During the year, visits were paid to Menindee and the aboriginal station near Menindee and children were immunized against diphtheria. A total of about 140 children had the three immunizing injections at the two centres.

From the Public Health point of view, there is nothing further of interest to report.

The State Laboratory conducted 7,397 examinations during the year compared with 10,497 for the previous twelve months. Details are as follow; figures for the previous period are given in parenthesis.

Total number of examinations	7,397	(10,497)
Biochemical tests	1,610	(1,431)
Bacteriological examinations	3,406	(6,908)
Haemotological examinations	2,044	(1,826)
Histopathological (tissue)	127	(86)
Serological specimens (sent to Sydney)	210	(246)

The low incidence of infectious diseases explains the fall in the number of laboratory examinations.

All members of the staff of the State Laboratory have performed their duties in a highly satisfactory manner.

SECTION III.

HOSPITALS AND INSTITUTIONS.

LEPROSY.

REPORT ON LEPROSY IN NEW SOUTH WALES FOR YEAR ENDED 31st DECEMBER, 1940.

On 31st December, 1940, nine persons remained under detention at the Lazaret, Little Bay.

One death occurred (D.B.W.) a Chinese.

Return showing admissions, discharges, etc., of patients suffering from leprosy, during the year 1940.

Remaining in Lazaret at 1st January, 1940	9
Admitted during the year	2
Died during the year	1
Discharged during the year	0
Repatriated during the year	1
Remaining in Lazaret at 31st December, 1940 .	9

The patients in the Lazaret at the close of 1940 were of the following nationalities:—

New South Wales	5 (1 aboriginal).
Pacific Islander	1
Malaya	1
Malta	1
Western Australia	1
Total	9

Two Chinese were admitted during the year, of whom one died and the other was repatriated to Hong Kong at his own request.

Statement showing the working expenses of the Lazarets (for men and for women) at Little Bay, for the year 1940 is attached:—

Working Expenses Lazaret, 1940.

	£	s.	d.
Salaries	2,430	1	2
Provisions	697	18	6
Tobacco and comforts	81	2	1
Clothing	68	7	11
Fuel and light	176	11	3
Drugs, dressings, etc.	65	14	3
Miscellaneous	498	12	3
	£4,018	7	5

Deduct amounts received in respect of maintenance £153 18s. 8d. nett cost £3,864 8s. 9d.

Average number of patients resident 9.2 being equal to an average of £420 0s. 11d. per inmate per annum in 1940.

WATERFALL SANATORIUM.

ANNUAL REPORT FOR THE YEAR ENDED 31st DECEMBER, 1940.

Honorary Consulting Physicians.—Dr. CECIL PURSER and Dr. E. W. FAIRFAX.

Visiting Radiologist.—Dr. A. T. NISBET.

Resident Staff, Etc.

Medical Superintendent.—Dr. J. A. R. MURPHY.

Senior Medical Officer.—Dr. C. Y. BLAND.

Medical Officer—Dr. A. L. WADDINGTON.

Manager—Mr. E. C. BARRETT—On Active Service abroad.

Acting Manager.—Mr. J. M. BOOLER (from 18-6-40).

Matron.—Miss K. WALSH—retired 2-11-40.

Acting Matron.—Miss E. B. DICKSON (from 3-11-40).

One Sub-Matron: Thirty-four nurses; thirteen indoor attendants; one clerk; one junior clerk; one storekeeper; five maintenance staff; eight domestic staff; six other staff.

A dentist visits the institution on two full days a month.

A dispenser visits the institution five full days each fortnight.

An X-ray technician visits the institution on Tuesdays, Wednesdays and Thursdays, weekly.

Bed Accommodation.—Males 292, females 136, total 428.

Number of patients dealt with, 838.

Number of tuberculosis patients dealt with, 831.

Patients remaining in 31-12-39, 409.

Patients admitted during 1940, 429, of whom seven were not tuberculous.

Remaining in residence 31-12-40, 391—males 264, females 127.

Average daily number of beds occupied—Males 282.453, females 132.868.

Condition on Discharge of 447 Patients Discharged.—Including 7 Non-tuberculous Cases.

Condition on Discharge.	Number of Patients.	Average Residence in Days.
Arrested	2	1,934
Quiescent	24	1,789
Much improved	49 Tuberculous 3 Non-tuberculous	427
Improved	169 Tuberculous 2 Non-tuberculous	254
Stationary	75 Tuberculous 1 Non-tuberculous	172
Worse	45 Tuberculous 1 Non-tuberculous	252
Died	76	397

Of the seventy-six deaths, six were due to causes not related to pulmonary tuberculosis, and sixteen occurred from pulmonary tuberculosis in patients resident in the institution for a period of less than three months and bed-ridden continuously from admission to death.

Condition of Patients on Admission and Discharge.

On Admission.	Arrested.	Quiescent.	Much Improved.	Improved.	Stationary.	Worse.	Died.
L1 T1 ...	1	14	5	15	0	0	0
L2 T1 ...	1	7	8	21	0	0	1
L3 T1 ...	0	0	20	49	43	3	1
L1 T2 ...	0	0	1	2	6	5	4
L2 T2 ...	0	3	5	9	2	6	5
L3 T2 ...	0	0	9	71	8	17	36
L1 T3 ...	0	0	0	0	0	0	0
L2 T3 ...	0	0	0	0	0	0	0
L3 T3 ...	0	0	1	2	16	14	29
Non-tuberculous ...	0	0	3	2	1	1	0

The work of the institution has been carried on satisfactorily.

It has been and under present conditions will continue to be hampered by the inadequacy of the staff; representations already made in this regard have not up to the present resulted in any amelioration of conditions within the wards.

The best standard attainable here is one bedside nurse per twenty-two patients; roughly 40 per cent. of the male patients and well over 50 per cent. of the female patients here are bed cases and make a total of about 170 at any one time; the present nursing staff is not adequate to nurse these alone on modern standards. But there are a further 258 dining room and ward patients also to be cared for by the same set of nurses.

Rest remains the basis of our treatment. There is now firmly established the practice of two rest periods each day. This innovation was very stoutly resisted by the patients for quite some time and necessitated long continued persuasion and vigilance to ensure its acceptance. I am happy to state that the rest periods are now being conscientiously observed almost universally.

As the year has drawn to its close the institution has been the scene of a good deal of new construction and alteration. Additions are being made to the nurses' home; a new cottage for an additional medical officer has been erected, and provision for the female gratuity workers in a new and detached building has been made. Further, certain additions and alterations to fabric and equipment within both the men's and women's hospitals have been undertaken.

The grounds are continuously being improved as opportunity offers. There is a dearth of suitable outdoor amusement for ambulatory patients, and little by little further amenities are being provided.

During the year the matron, the clerk and storekeeper and the carpenter entered on long service leave prior to retirement, and the loss of their services after long years spent here was keenly felt. During the year also four of the male members of the staff joined the A.I.F. for Active Service overseas.

For their hard work done uncomplainingly and for their earnest co-operation, I have to record my sincere thanks to the staff. The result of their good work is seen in the mortality figure which for an average daily number of occupied beds at 415 has been seventy-six.

Also the institution is grateful to many benefactors who have provided a variety of very excellent entertainments in the way of concerts and band performances throughout the year and it is pleasing to record that this year again the Hon. R. B. Orchard has been a generous friend. To the various film exchanges we again tender our thanks for their never failing gratuitous supply of excellent "talkie" films.

STRICKLAND CONVALESCENT HOSPITAL, VAUCLUSE.

ANNUAL REPORT FOR 1940.

Visiting Emergency Officer: Dr. R. L. PARKER.

Clerical Staff: Mr. D. W. A. MCHARG.

Nursing Staff: Matron V. K. ANGUS, Head Nurse L. STACKER, two other trained nurses and three pupil nurses—total seven.

Female House Staff: Six.

Inmate Workers: Twenty-one.

Attendants: One outdoor Attendant, one night Attendant, and one Attendant Cleaner.

Patients' Bed Accommodation: Females 80, Males 40.

	Men Patients.	Female Patients.	Inmate Workers.
Remaining in hospital on 31st December, 1939	33	38	21
			Total.
Patients admitted during the year 1940	420	759	1,179
Patients discharged during the year 1940	425	761	1,186
Patients deceased during the year 1940	Nil	Nil	Nil
Daily average	27	44	71
Remaining in hospital on 31st December, 1940	28	36	64

Maintenance and Donations for the year amounted to £751.

Improvements.—Maintenance repairs to spoutings, down pipes, etc. Internal painting of male ward dining-room, furniture, skirtings, bathroom walls, etc., all done locally. Improvements to lawns, flower beds and patients' recreation area. The patients are on the whole congenial and happy, showing marked improvement after medical and surgical illnesses. They are sent here through metropolitan and country hospitals and other medical officers. The hospital for male and female patients is ideally situated in extensive grounds of lawns, shrubs and flower beds, with spacious sun verandahs. An extensive view of the harbour and bridge can be seen from the entire hospital buildings and grounds.

LIDCOMBE STATE HOSPITAL AND HOME.

REPORT OF THE MEDICAL SUPERINTENDENT FOR THE YEAR ENDED 31ST DECEMBER, 1940.

Honorary Visiting Staff.

Honorary Staff Surgeon: H. C. RUTHERFORD DARLING, M.D., F.R.C.S.

Honorary Assistant Surgeon: J. A. LAWSON, M.B., Ch.M.

Honorary Ear, Nose and Throat Surgeon: Vacant.

Honorary Ophthalmic Surgeons: A. E. CHAFFER, M.B., Ch.M.; F. J. A. POCKLEY, M.B., B.S.; R. A. DE CASTRO BASTO, M.B., B.S. (Hong Kong), M.R.C.S. (England), L.R.C.P. (London), D.O.M.S., L.R.C.P. & S. (London).

Honorary Urologist: C. M. EDWARDS, M.B., Ch.M.

Honorary Dermatologist: Vacant.

Radiographer: COLIN R. COLE, M.B., Ch.M.

Dentist: D. G. BROWN.

Staff.

Administrative Staff:

Medical Superintendent: E. J. BROOKS, M.B., Ch.M.

Senior Medical Officer: G. S. PRO-COPIS, M.B.

Junior Medical Officers: N. C. WRIGHT, L.R.C.P., L.R.C.S. (Edin.), L.R.F.P.S. (Glas), M.R.C.P. (Edin.), S. J. H. MOREAU, M.B., Ch.M., J. P. BARRY, M.B., B.S.

Manager: J. J. RANSHAW.

Assistant Manager: J. M. BOOLER.

Matron: Miss E. M. COPEMAN.

Sub-Matron: Miss H. P. MCGREGOR.

Nurses	54
Attendants	84
Other Female Staff	6
Other Male Staff	38

A radiographer visits the institution once weekly, a dentist once weekly, and an X-Ray technician twice weekly.

Number of Wards and Dormitories and Beds Available.

Hospital Division.		General Division.		Total Accommodation.	
Ward No.	1940. No. of Beds.	Dormitory No.	1940. No. of Beds.		
4	28	31	80		
5	47	32	80	1940.	
6	52	33	80		
7	54	35	75	Hospital Division	1,076
9	59	36	75		
10	61	37	75		
11	59	38	75	General Division ...	834
14	49	39	75		
16	56	41	29		
17	59	43	70		
18	56	44	60	Total Bed Accommodation	1,910
20	50	Emergencies (Hospitals)	6		
27	95				
28	98	Outside locations ...	16		
29	55				
30*	30	......	...	....	
Dorm. 34...	64	......	...	....	
Infectious Division	48	......	...	....	

* Ward 30 opened December 17th, 1940, with bed accommodation of 30.

The foregoing figures represent the total capacity of the various hospital wards and dormitories, and show accommodation for 1,076 patients and 834 inmates—a total of 1,910.

Daily Average Number of Patients and Inmates Resident.

1930	1,591
1931	1,563
1932	1,556
1933	1,539
1934	1,516
1935	1,562
1936	1,585
1937	1,721
1938	1,619
1939	1,734
1940	1,680

Admissions, Discharges, etc.

	Hospital Division.	General Division.	Infectious Division.			Total.
			Male.	Female.	Total.	
In Institution on 31st December, 1939	957	664	15	17	32	1,653
Admissions	1,730	2,199	98	127	225	4,154
						5,807
Transfers, (from Yard and other Sections)	429	348	1	...	1	778
Total	3,116	3,211	114	144	258	6,585
Discharges	1,190	2,212	105	133	238	3,640
Deaths	637	7	3	...	3	647
Transfers to Other Sections	349	428	1	...	1	778
Total	2,176	2,647	109	133	242	5,065
In Institution on 31st December, 1940	940	564	5	11	16	1,520

Daily Average Number during 1940.—Hospital Division, 969.493; General Division, 686.978; Infectious Division, 23,334; Institution, 1679.805.

Casual Relief.—During the year under review 628 indigent persons were provided with sleeping accommodation for one night and 1,352 persons were supplied with a meal.

Cost of Maintenance and Treatment.—In 1940 the total cost of maintenance and treatment of patients and inmates was £104,340 10s. 0d. The average annual cost of patients and inmates was £62 2s. 3d.

Work of Honorary Medical Officers.—The visiting surgical and ophthalmic specialists performed 208 surgical operations.

Work of the Staff.—The resident medical officers carried out thirty-six major and minor operations.

X-Ray Department.—1,534 cases were examined and 2,183 films used.

Massage Department.—One hundred and forty-eight cases received treatment; fifty-nine recovered, thirty-six relieved, thirty-six unrelieved, seventeen are still under treatment.

Infectious Division.—During the year 258 patients were treated, including one admitted from the general division.

Bake House.—During the year 1,169,203 lbs. of bread and cake were produced. Average cost, 1.228 pence per pound.

Laundry.—Number of articles laundered during the year was 1,125,388.

Building Construction.—During the year the construction of the new nurses' quarters was completed. The new building has accommodation for nineteen nurses and, although not yet complete in indoor detail, is now in occupation.

Dairy and Farm.—During the year 87,628 gallons of milk were produced and an average of 93 cows in milk daily. Three tons, 18 cwt. of green feed were grown.

Vegetable Gardens.—Vegetables approximating 111,599 lbs. were produced for hospital consumption.

Piggery.—Regular sales of pigs were maintained during the year and an amount of £524 16s. 5d. was realised from the sale of store pigs. In addition, pork weighing 4,591 lbs. has been consumed by the inmates.

LIVERPOOL STATE HOSPITAL AND HOME FOR MEN.

REPORT OF THE MEDICAL SUPERINTENDENT FOR THE YEAR ENDED 31ST DECEMBER, 1940.

Honorary Visiting Staff.

Consulting Surgeon: B. T. EDYE, F.R.C.S.

Surgeon: L. D. MILLER, M.B., F.R.C.S.

Assistant Surgeons: J. A. MANNION, M.B., Ch.M.; A. L. WEBB, M.B., F.R.C.S.; J. A. LAWSON, M.B., F.R.C.S..

Anaesthetist: A. ROSS INNES, L.R.C.P. (Lond.), M.R.C.S. (Eng.).

Ear, Nose and Throat Surgeon: H. J. EIZENBERG, M.B., B.S.

Dermatologist: W. A. McDONALD, B.A., M.B., Ch.M.

Urologist: R. I. CAMPBELL, M.B., Ch.M.

Staff.

Medical Superintendent: C. R. O'BRIEN, M.B., Ch.M.

Medical Officer: B. GATES, M.V., B.S.

Visiting Medical Officer: J. PIRIE, L.R.C.P., L.R.C.S. (Edin.), L.F.P.S. (Glasgow).

Manager: S. T. CREAGH.

Matron: L. W. MCINTOSH.

Constitution of the Hospital Staff on 31st December, 1940.—Medical Superintendent, Medical Officer, Visiting Medical Officer, Manager, Matron, Sub-Matron; Nurses, 27; Clerks, 2; Office Assistant, Storekeeper, Dispenser, Male Attendants, 18; other Male Staff, 14; other Female Staff, 2. A Dentist visits the Institution fortnightly.

Number of Wards and Beds.—Hospital Division, 11 wards containing 302 beds; General Division, 13 dormitories containing 541. Total accommodation, 843 beds.

Admissions and Discharges for the year ended 31st December, 1940.—In residence, 1st January, 1940, 750; admitted during year, 3,157; discharged, 2,743; died, 420; remaining 31st December, 1940, 744; average daily number resident, 780.

Summary of Patients treated in the various Wards during 1940.

Hospital Section.	In Hospital 1 January, 1940.	Admitted during Year.	Discharged during Year.	Died during Year.	In Hospital 31 December, 1940.
Cancer Wards	52	179	87	85	59
General Wards	182	714	488	230	178
Totals	234	893	575	315	237
District Wards	50	914	807	102	55
Grand Totals	284	1,807	1,382	417	292

Out-patients.—13,410 attendances were recorded during the year, including 3,878 individual attendances.

Hospital Wards.—The accommodation has been fully utilised. 1,807 patients were under treatment and 591 operations were performed; 326 under general anaesthesia, 208 of which could be classed as major operations.

The erection of a new unit for cancer patients was begun in July and good progress is being made with the building which, it is expected, will be completed about April next.

It is a great pleasure to report this work being in hand, as the accommodation for these particular patients is far from desirable.

The enlargement of the sterilizing room and installation of a new sterilizer and sink were completed about the middle of the year.

During the year the Public Works Department renewed a stormwater drain to the river, and carried out some minor painting jobs.

A wash-up annex to "A" Ward was completed and put into use.

The Liverpool Municipal Council was again assisted in its campaign of immunisation against diphtheria, by being granted the services of nurses and the use of the Out-patient Department.

Dr. Donald Wallace retired on 17th March, 1941, and Dr. C. R. O'Brien was appointed Medical Superintendent.

As in past years, entertainments were provided by various organisations, and donations of tobacco, fruit, eggs and sweets were received and distributed amongst the men. To the members of the organisations and to the individual persons concerned, best thanks are tendered.

Four members of the staff are on service with the A.I.F.

A social function to raise funds for war purposes was conducted by the staff and realised £57, which was forwarded to the Commonwealth Treasurer.

Unfavourable weather conditions continued until the last month of the year, and, as a consequence, the farm production was disappointing with the exception of milk, in which commodity we were in a position to meet our own needs and supply quantities to Lidcombe and Newington State Hospitals. Details of production: Milk, 50,890 gallons; vegetables, 28,100 lbs.; fruit, 4,170 lbs.

Revenue from pigs amounted to £242 18s. 0d.

Maintenance and miscellaneous collections, £1,635.

A number of minor repairs and painting jobs to buildings was done by the local staff.

NEWINGTON STATE HOSPITAL AND HOME FOR WOMEN.

ANNUAL REPORT FOR YEAR ENDED 31ST DECEMBER, 1940.

Honorary Medical Staff.

Neurologist, Vacant.

Ophthalmic Surgeon, GROSVENOR JOHN WILLIAMS, M.B., Ch.M. (Sydney).

Staff.

Medical Superintendent, J. MCMANAMEY, M.B., B.S. (Sydney); Visiting Medical Officer, FRANCIS H. FURNIVAL, M.R.C.S. (Eng.), L.S.A. (Lond.); Medical Officer, LOTTIE SHARFSTEIN, M.B., Ch.M.; Manager, S. J. WARNER; Matron, EMILY WOOD; Submatron, 1; Nurses, 55; Dispenser, 1; Clerk, 1; Junior Clerk, 1; Storekeeper, 1; other female staff, 23; male staff, 15.

A dentist visits the institution fortnightly.

Admissions and Discharges.—Inmates in institution on 1st January, 1940, 596; admitted during the year, 1,138; discharged, 840; died, 262; remaining in institution on 31st December, 1940, 632; average daily number, 626.

Hospital Division Statistics.—Beds available, 363; in hospital at 1st January, 1940, 334; admitted during the year, 578; discharged during the year, 316; died during the year, 262; remaining in hospital on 31st December, 1940, 334.

Classification of Cases Discharged.—General diseases, 106; alimentary, 45; genito-urinary, 52; osseous and arthritic, 42; nervous, 75; specific, 37; respiratory, 105; skin and glands, 58; wounds and fractures, 60; circulatory, 238; miscellaneous, 26; total, 844.

Review of Work.

Gardens and Grounds.—The lawns and flower gardens have been efficiently maintained during the year and vegetables have been grown in large quantities for the use of both staff and hospital.

Laundry.—The special machinery for the hygienic treatment of hospital linen has been installed and is proving very satisfactory and the work in this section has been efficiently carried out.

Entertainments.—During the year, through the courtesy of Harringtons Pty. Ltd., and at a very small cost, an electrical pick-up amplifying recording machine was installed in the hall. This is proving a very great boon to the inmates in providing entertainment of recorded music.

Entertainments were provided as usual during the year by the many friends of the inmates for which the thanks of the administration is given.

Piggery.—This section has maintained its high standard as a stud piggery during the year. The introduction of a Berkshire boar of the Canadian strain would be an improvement to the stud. Sales of pigs during the year realised £487 16s. 11d.

Maintenance of Buildings.—All buildings have been efficiently maintained.

RANDWICK AUXILIARY HOSPITAL, RANDWICK.

The undermentioned statistics have been compiled in respect of this Hospital:—

1. Particulars relating to inmates, viz:—

	Males.	Females.	Total.
(*a*) No. of beds available on 31st December, 1940	90	61	151
(*b*) Inmates on 31st December, 1939	89	61	150
Admitted during 1940	175	82	257
Total treated	264	143	407
Number discharged	60	37	97
,, deceased	114	45	159
Total discharged and deceased	174	82	256
Remaining on 31st December, 1940	90	61	151
Average daily number resident		150	
,, residence of discharged patients in days		27	
Number of babies born in Hospital during year		Nil.	
(*c*) Outpatients—			
Number of individuals who received treatment	7	12	19
Total number of attendances		81	

2. Staff—

Honorary Staff—	Males.	Females.	Total.
Medical Officers		3	
Others		...	
Management and Clerical		1	
Medical Officers (Part time)		1	
Nursing Staff (Male 6 Female 47)		53	
Domestic Staff		19	
Maintenance		4	
Special Departments (Dental and X-ray)		2	
Others		...	
Total		83	

Note.—The above figures do not include Inmate Workers.

In Hospital at 31st December, 1939		6	
Admitted during year		14	
Discharged		13	
Remaining in hospital at 31st December, 1940		7	

THE DAVID BERRY HOSPITAL.

REPORT OF THE SECRETARY FOR THE YEAR ENDED 31ST DECEMBER, 1940.

Administrative Staff.

Visiting Medical Officer: Dr. R. C. APPS.

Matron: Miss D. G. CAWOOD.

Secretary: A. F. HALE.

Resident Staff.

Matron, head nurse, three staff nurses, five pupil nurses, four domestics, two inmate workers.

Non-resident.—One domestic, two attendants.

Numbers of Wards and Beds.—Wards, 9; beds, 28; cots, 4; general cases beds, 26; cots, 2; infectious cases beds, 2; cots, 2.

Admissions and Discharges.—Remaining in, 1st January, 1940, 10 males, 6 females, 16; admitted during year, 229 males, 175 females, 404; discharges, 209 males, 168 females, 377; deaths, 19 males, 3 females, 22; remaining in, 31st December, 1940, 11 males, 10 females, 21; births, 4 males, 3 females, 7. The total number of patients was 420 as against 433 for 1939. The daily average, 20, was the same as the previous year.

Out-patients.—532 out-patients were treated during the year, including school children under the diphtheria immunisation scheme.

Infectious Cases.—Scarlet fever, 2; diphtheria, 1; chicken pox, 1; measles, 2.

Anaesthetics.—The total number of operations performed was 273—major, 117; minor, 156—an increase of ninety-six on the previous year. The only outside assistance called for by the Medical officer in connection with these operations was one visit by Dr. Ryan, of Nowra.

X-rays.—161 patients were X-rayed during the year compared with 109 for 1939.

Collections for the year totalled £805 18s. 7d. as against £811 1s. 4d. for the previous year.

General.—A new tennis court was constructed during the year—internal repairs and renovations effected—equipment provided improving appearance of wards. Members of the staff fenced in the drying area and laid out a new garden in the grounds of the nurses' quarters.

The grounds and buildings generally are in fairly good order.

SECTION IV.

MICROBIOLOGICAL LABORATORY.

REPORT OF THE PRINCIPAL MICROBIOLOGIST FOR THE YEAR 1940.

Staff.

Principal Microbiologist: ERNEST LESLIE MORGAN, M.B., Ch.M.

Assistant Microbiologists: ELSIE J. DALYELL, O.B.E., M.B., Ch.M.; KEITH HARVEY GRIEVE, M.C., M.B.; STANLEY W. M. KING, L.R.C.P. (Lond.), M.R.C.S. (Eng.); ELIZABETH L. F. LAURIE, B.A., B.Sc., M.B., B.S. (Syd.); GORDON C. SMITH, M.B., B.S. (Syd.), ALFRED E. GATENBY, M.B.B.S. (Syd.).

Senior Laboratory Assistant: JOHN O. SERGEANT.

First and second laboratory assistants; eight laboratory assistants; four laboratory attendants.

Clerical: One shorthand writer and typist; one office assistant; one telephone attendant; one messenger (temporary).

During 1940, 86,754 general laboratory examinations were carried out, and, in addition, 3,078 examinations of rats for plague. The number of serological examinations during the year was a slight decrease on the previous year's figures, viz., 21,464 Wasserman tests and 20,721 Kahn tests. Forty-seven Complement Deviation Tests for hydatid were carried out as against thirty-eight in 1939. The number of milk samples submitted by the Milk Board for determination of the bacteriological content was 777. The number of samples submitted for examination for tubercle bacilli and B. abortus was 724, of these one was positive for tubercle bacilli and eighty-six for B. abortus. The number of medico-legal examinations was 1,600.

Specimens submitted for blood counts, differential blood counts, coagulation times, etc., numbered 1,019, an increase of 133. Bio-chemistry examinations (blood sugar, urea, test meals, etc.) were 1,802 compared with 1,344 during 1939.

The amount of revenue collected from examinations, sale of sera, etc., was £1,291 4s.

The decrease in the number of general laboratory examinations as compared with 1939 is largely accounted for by the decrease in the number of swabbings examined for diphtheria bacilli together with the decrease in the number of smears examined for gonococci.

Diphtheria.—3,625 swabbings were examined during 1940 as compared with 8,812 in 1939. Two hundred and eleven swabbings were examined for toxicity.

Typhoid Fever.—The incidence of typhoid fever in New South Wales still remains low, 160 specimens of blood for the Widal test were submitted in 1940. This number is slightly higher than that for 1939, 147. The number of examinations of urine, faeces and miscellaneous materials for typhoid fever is slightly higher than that for 1939.

Typhus.—Five specimens of blood were examined in 1940 for diagnosis of typhus fever. The Weil Felix reaction was positive in one instance.

Gonorrhoea.—There has been a decrease in the number of smears examined for gonorrhoea. The total number of examinations in 1940 was 18,726 as against 22,323 in 1939.

Serology.—Complement Deviation tests for gonorrhoea for the year 1940 were 7,174 as compared with 7,925 in 1939.

Wasserman Reactions.—During 1940 21,464 tests were carried out as compared with 21,794 in 1939, being a slight decrease in 1940.

The Kahn Flocculation test figures were 21,073 in 1939 as compared with 20,721 in 1940.

Complement Deviation tests for Hydatid in 1940 numbered forty-seven as against thirty-eight in 1939, a slight increase.

Malaria.—During the year 1940, eleven slides were examined for malaria. In four instances malarial parasites were found. (*P. Vivax*, three; *P. Falciparum*, one.)

Milk.—Seven hundred and seventy-seven samples of milk were submitted by the Milk Board in 1940 for determination of bacteriological content, as against 819 in 1939. The number of samples submitted for examination for tubercle bacilli and B. abortus was 724 as compared with 699 in 1939. Of these one of the inoculated guinea pigs developed tuberculosis and eighty-six guinea pigs (11.87 per cent.) showed evidence of infection with B. abortus.

Tetanus.—Eight examinations for tetanus were carried out during 1940. *B. tetani* was recovered from cultures of one of the specimens.

Anthrax.—During 1940, five examinations for *B. anthracis* were carried out. One examination (specimen of blood from a male patient aged 57) proved positive.

One shaving brush was submitted for examination but no *B. anthracis* was recovered.

B. Abortus.—Twenty-nine samples of blood were submitted for agglutination against *Brucella abortus* during 1940, as compared with twenty-six in 1939. All examinations were negative in 1940.

Medico-legal.—During 1940 exhibits from 128 medico-legal cases were submitted for examination. This work involved the examination of 407 separate exhibits with a total of 1,600 individual examinations. These embraced slides for gonococci and spermatozoa, clothing and exhibits for blood and seminal stains, blood for grouping, and hairs and fibres for identification, besides other miscellaneous examinations.

Anti-sera to the blood of various animals were prepared from time to time.

Haematology (full blood counts, differential counts, coagulation times, etc.).—During 1940, 1,019 specimens were submitted for examination as compared with 886 in 1939, an in increase of 133. The examinations comprised full and differential counts with occasional platelet counts, coagulation time, etc.

Biochemistry Examinations (blood sugar, urea, test meals, etc.).—Examinations during 1940 were 1,802 as compared with 1,344 during 1939.

Staff Changes.—During 1940, Dr. G. C. Smith was transferred from this laboratory to the Department of Industrial Hygiene; the vacancy thus created was filled by Dr. A. E. Gatenby who commenced duty in May, 1940. Miss M. Turner resigned in January to be married; she was replaced by Miss P. Conlin.

Need for Additional Accommodation.—The present accommodation is taxed to the utmost. Until further space is available it is not possible to extend the scope of the work and the overcrowded condition has now become acute.

TABLE showing the Routine Examinations made for the various Branches of the State Department of Public Health, other Government Departments, Subsidised Hospitals, etc.

	Number of Examinations. Comparative Statement.	
	1939.	1940.
Department of Public Health—		
Head Office Submissions	37,078	30,440
David Berry Hospital, Berry	124	24
Lidcombe State Hospital and Home	3,261	2,807
Liverpool State Hospital and Home	723	468
Newington State Hospital and Home	363	283
Waterfall Sanatorium	...	...
Medical Officer of Health, Metropolitan District	5	...
Medical Officer of Health, Hunter River District	37	8
Randwick Auxiliary (Tuberculosis) Hospital	1,125	1,100
Commonwealth Government	182	263
State Departments—		
Agriculture and Stock Department	...	...
Education Department	95	3
Child Welfare	5	...
Government Stores Department	...	...
Milk Board	1,529	1,501
Police Department	87	119
Prisons Department (Long Bay Gaol, etc.)	144	14
Public Works Department	12	15
Railways and Tramways Department	...	8
Fisheries Department	...	60
Water Conservation Commission	5	...
Forestry Department	...	3
Main Roads Board	...	2
Aborigines' Protection Board	...	7
Water, Sewerage and Drainage Board	2	...
Private Practitioners	15,204	17,262
Public Hospitals and Institutions other than State Hospitals	26,069	20,937
Municipal and Shire Councils	203	352
Rachel Forster Hospital	10,406	11,078
	96,659	86,754
Total Examinations—		
General	96,659	86,754
Rats for Plague	4,708	3,078
Total	101,367	89,832

In the following Statement the Routine work is divided into sections to disclose the purposes for which the various examinations were made.

	Number of Examinations. Comparative Statement.			
	1939.		1940.	
A.—*Microbiological Examinations.*				
1. Of materials from diseased persons and animals—				
Actinomycosis	9		4	
Brucella abortus	26		29	
Diphtheria (swabbings)	8,812		3,625	
,, (toxicity)	318		211	
Dysentery	9		10	
Gonorrhoea (smears and urine)	22,323		18,726	
Gonorrhoea (complement deviation test)	7,925		7,174	
Hæmolytic streptococci	329		613	
Hydatids (sputa, smears, etc.)	19		8	
Hydatids (complement deviation test)	38		47	
Leprosy (human)	42		174	
Malaria	16		11	
Meningitis	85		60	
Syphilis (Wassermann reactions)	21,794		21,464	
,, (Kahn's flocculation test)	21,073		20,721	
,, (spirochætes)	362		361	
Tetanus	1		8	
Tinea	16		19	
Tuberculosis	3,889		3,342	
Typhoid (Widal reactions)	147		160	
,, (urine, fæces)	95		104	
Typhoid (miscellaneous, water, milk, etc.)	35		8	
Unclassified: "No growths" from pus, etc.	941		1,071	
Typhus	9		5	
Vincent's Angina	27		45	
Hookworm	...		...	
Meningococcus	...		6	
Undulant Fever	...		5	
		88,340		78,011
2. Examinations for Anthrax—				
Human beings	1		5	
Shaving brushes, etc.	...		1	
Wool	...		...	
		1		6
3. Of Materials, etc.—				
Chemical closet contents	...		...	
Disinfectants	46		24	
Feathers	...		...	
Sewage, effluents, etc.	1		...	
Soil	...		2	
Water	233		441	
Water from swimming baths	211		196	
		491		663
4. Examination of Foods for Bacterial Contamination—				
Oysters	...		12	
Milk—				
Milk samples submitted by the Milk Board for examination for tubercle bacili and B. abortus	699		724	
Milk samples for bacteriological count submitted by the Milk Board	819		777	
Miscellaneous milks for bacterial counts, etc.	10		...	
		1,528		1,513
5. Examinations for Food Poisoning	3		19	
		3		19

	Number of Examinations. Comparative Statement.			
	1939.		1940.	
B.—*Pathological Examinations.*				
1. Of Animals—				
Mammals	...		...	
Fish	...		...	
2. Of Body Fluids—				
Blood for full and differential count	886		1,019	
Blood for blood typing	11		...	
,, —coagulation time	4		1	
		901		1,020
Chemical Examinations—				
Blood for sugar	77		175	
,, ,, ,, tolerance	110		203	
,, ,, urea	176		221	
,, ,, ,, creatinin	10		42	
Urine for sugar (quantitative)	20		32	
,, ,, urea	123		202	
Test meal specimens	435		538	
Calculus	13		26	
Miscellaneous	380		364	
Fæces	69		126	
Urine (general examinations)	913		840	
		2,326		2,769
3. Of Tissues—				
Malignant tumours	439		497	
Tubercular	28		26	
Other conditions	1,621		1,427	
		2,088		1,950
C.—*Examination of Parasites.*				
Ecto-parasites (fleas, ticks, etc.)	5		2	
Endo-parasites (round and flat worms)	...		...	
Protozoa	13		15	
Insects (including flies and mosquitoes) and spiders	2		...	
		20		17
D.—*Medico-Legal Examinations.*				
Examinations of Exhibits for blood and Seminal Stains, etc.—	113		128	
		113		128
Blood Donors (2 examinations on each)	435		260	
		435		260
.—*Examination of Specimens for Preparation of Vaccines.*				
Preparation of Autogenous Vaccines from sputa, urine, acne, pustules, boils, wounds and other septic conditions	413		398	
		413		398
Total		96,659		86,754

The following table indicates the number of Rats and Mice destroyed and examined at Sydney and Newcastle during the year ended 31st December, 1940.

1940.	Sydney.				1940.	Newcastle.			
Month.	*R. R. Rattus.*	*Rattus Norvegicus.*	*M. Musculus.*	Total.	Month.	*R. R. Rattus.*	*Rattus Norvegicus.*	*M. Musculus.*	Total.
January	283	34	19	336	January	4	3	...	7
February	284	57	25	366	February	3	2	...	5
March	204	25	15	244	March	...	10	...	10
April	273	51	13	337	April	...	2	...	2
May	293	...	16	309	May	...	6	...	6
June	161	...	31	192	June	...	2	...	2
July	149	...	77	226	July	...	1	...	1
August	173	...	23	196	August	...	1	...	1
September	217	...	63	280	September	...	2	...	2
October	221	...	27	248	October	...	2	...	2
November	193	...	3	196	November	2	4	...	6
December	103	...	1	104	December	...	...	...	...
Total	2,554	167	313	3,034	Total	9	35	...	44

WELLCOME LIBRARY INSTITUTE